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COMPUTER SYSTEM MANUAL  
CSM PSM 9A-67  
VOLUME II, PART C  
29 FEBRUARY 1972

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**THE NMCSSC  
QUICK-REACTING  
GENERAL WAR GAMING  
SYSTEM  
(QUICK)**

PLAN GENERATION SUBSYSTEM

PROGRAMMING SPECIFICATIONS  
MANUAL

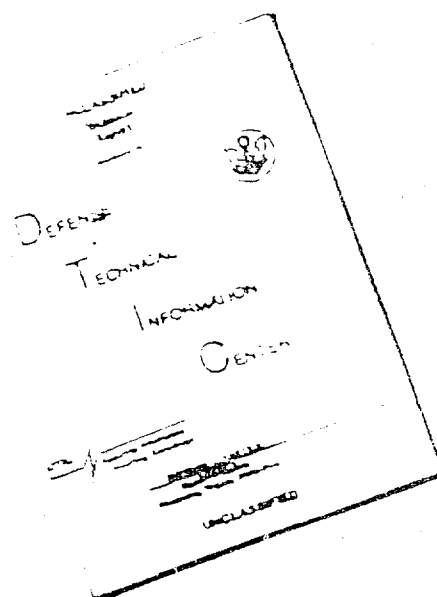
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13. ABSTRACT This is one of three volumes describing computer programs of the QUICK-Reacting General War Gaming System (QUICK). These volumes complement other NMCSSC Computer System Manuals on QUICK by discussing the programs from a computer programming point of view. This volume, in six parts, concentrates on the Plan Generation Subsystem of QUICK. Other volumes are available for the Input Subsystem and Simulation Subsystem. Collectively, these volumes provide a good basis for maintenance activity on the QUICK System.  Based upon a suitable data base, and user control parameters, QUICK will generate individual bomber and missile plans suitable for war gaming. The generated plans are of a form suitable for independent review and revision. Subsequently, execution of the planned events can be simulated. Various statistical summaries can be produced to reflect the results of the war game. A variety of force postures and strategies can be accommodated.  QUICK is documented extensively in a set of Computer System Manuals (series 9-67) published by the National Military Command System Support Center (NMCSSC), Defense Communications Agency (DCA), The Pentagon, Washington, DC 20301.		

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NATIONAL MILITARY COMMAND SYSTEM SUPPORT CENTER

Computer System Manual Number CSM PSM 9A-67

29 February 1972

THE NMCSSC QUICK-REACTING GENERAL WAR GAMING SYSTEM (QUICK)

Programming Specifications Manual

Volume II - Plan Generation Subsystem

Part C

REVIEWED BY:

*R. E. Harshbarger*

R. E. HARSHBARGER  
Technical Director  
NMCSSC

Submitted by:

*Donald F. Webb*

DONALD F. WEBB  
Major, USAF  
Project Officer

APPROVED BY:

*Bruce Merritt*

BRUCE MERRITT  
Colonel, USA  
Commander, NMCSSC

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## ABSTRACT

The computerized Quick-Reacting General War Gaming System (QUICK) will accept input data, automatically generate global strategic nuclear war plans, simulate the planned events, and provide statistical output summaries. QUICK has been programmed in FORTRAN for use on the NMCSSC CDC 3800 computer system.

The QUICK Programming Specifications Manual (PSM) consists of three volumes: Volume I, Data Input Subsystem; Volume II, Plan Generation Subsystem; Volume III, Simulation and Data Output Subsystems. The Programming Specifications Manual complements the other QUICK Computer System Manuals to facilitate maintenance of the war gaming system. This volume, Volume II, provides the programmer/analyst with a technical description of the purpose, functions, general procedures, and programming techniques applicable to the programs of the Plan Generation Subsystem. This volume is in six parts: Parts A and B provide a description of the programs which make up the subsystem; Part C through F contain the associated program listings. Companion documents are:

1. GENERAL DESCRIPTION  
Computer System Manual CSM GD 9A-67  
A nontechnical description for senior management personnel
2. ANALYTICAL MANUAL  
Computer System Manual CSM AM 9A-67 (three volumes)  
Provides a description of the system methodology for the nonprogrammer analysts
3. USER'S MANUAL  
Computer System Manual CSM UM 9-67  
Provides detailed instructions for applications of the system
4. OPERATOR'S MANUAL  
Computer System Manual CSM OM 9A-67  
Provides instructions and procedures for the computer operators



```

CUSE      I      30NOV70 *****
COMMON /1/ MAXICOMP,NCPX(2500)
C          NCPX(1*INTERVAL) WHERE INTERVAL = MAX NUM TGT COMPLEXES,VAL GT 0
CEND      1 *****
CUSE      GROUP 15DEC70 *****
COMMON /GROUP/ GRP(1+210),IGRP(1+210),INIGRP(210),NWOSGRP,
*          JGT(2500)
EQUIVALENCE (GRP,IGRP,JGT)
C          GRP,IGRP(1+MGROUP*10), AND INIGRP(MGROUP*10) WHERE
C          MGROUP = MAX NUMBER OF WEAPON GROUPS
C          JGT IS USED ONLY IN TGSORT, AND IS JGT(1*INTERVAL)
CEND      GROUP *****
CUSE      MLTX 30NOV70 *****
COMMON /MLTX/ MLTX(31),MLTX(R,5),FMLTX(B,5),NM-ILT
EQUIVALENCE(MLTX,FMLTX)
CEND      MLTX *****
CUSE      PRCNTL 12MAY71 *****
COMMON /PRCNTL/ JJJGTS,JJJGP,JJJCPX
C          PRCNTL *****
CEND      TO 30NOV70 *****
COMMON /TO/ TO(31),TO(31)
EQUIVALENCE(TO,ITO)
CEND      TO *****
CUSE      DPOOL 19JAN71 *****
C          THIS BLOCK CONTAINS THOSE KNOWN IN OTHER PROGRAMS AS /ROUND/,
C          /CHECK/,/CORR/,/DEFFN/,/KORTYP/,/LFG/,/NAVALX/,/POI-T/,
C          /RADATA/,/RECON/,/RFF/,AND /TYPENAME/.
C          IT IS REUSED DURING TATSORT AS ITEM,
C          AND DURING GRPSORT AS ITANK AND JTANK
C          COMMON /DPOOL/ 18(200),LINKR(200),ZONER(200),EXATZR(200),
*          ICHKFLB(20),ICPMKMR(20),IC(30),LINKC(30),ZONEC(30),ITY(30),
*          IUI(50),LI-X(50),KMSSTY(5),MILDAT(5),DEFM(5),ATTAS(5),
*          ATTPC(5),IL(200),LTKML(200),AIAL(200),TKAS(10,10),
*          DMLAS(10,10),NTYPES(10),TIMESTM(200),MALLJM(200),
*          PLAT(200),LONC(200),PLAT(200),MLONG(200),LINKR(200),
*          RECLAT(200),RECLON(200),IPECPCITY(200),IMHMF(200),
*          4PLAT(20),4PLONG(20),CUMPO(15),ATYPES(15),INOCCLAS(15),
*          INHREG(250),TYPENAME(250),NTYPE,CHK(250),
*          PG(12),APA(12),OG(R),QA(8),
*          ITCP(15000),ITANK(12,200),JTANK(12,200)
C          TYPE INTEGER ZONE,ZONEC
C          TYPE INTEGER JJJGTS,JJJGP,JJJCPX
C          TYPE INTEGER TYPENAME,CHK
EQUIVALENCE (ITCP,ITCPNT)
EQUIVALENCE (ITCP,ITCPNT)
C          DPOOL *****
CUSE      LCPX 19JAN71 *****
COMMON /LCPX/ LCPX(250),ICNMR(125),ICPNT(125),ICNXX(125),
*          LTYPE(250)
EQUIVALENCE (LCPX,ICNMR), (LCPX(126),ICPNT)
EQUIVALENCE (LCPX(251),ICNXX), (LCPX(376),LTYPE)
C          LTYPE USED ONLY IN PLANSET
C          LCPX(1) IN TATSORT POINTS TO ICPLX ARRAY FOR COMPLEX NUM K
C          ICNMR(1),ICPNT(1),ICNXX(1),ICNXX(1)
C          COMMON /LCPX/ LCPX(250),ICNMR(125),ICPNT(125),ICNXX(125),
*          LTYPE(250)
EQUIVALENCE (LCPX,ICNMR), (LCPX(126),ICPNT)
EQUIVALENCE (LCPX(251),ICNXX), (LCPX(376),LTYPE)
C          LTYPE USED ONLY IN PLANSET
C          LCPX(1) IN TATSORT POINTS TO ICPLX ARRAY FOR COMPLEX NUM K
C          ICNMR(1),ICPNT(1),ICNXX(1),ICNXX(1)

```



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EQUIVALENCE(VULN ,VALUE( 12))  
 TYPE INTEGER VULN  
 EQUIVALENCE(H1 ,VALUE( 13))  
 TYPE INTEGER H1  
 EQUIVALENCE(H2 ,VALUE( 14))  
 TYPE INTEGER H2  
 EQUIVALENCE(MACH ,VALUE( 15))  
 TYPE INTEGER MACH  
 EQUIVALENCE(CATCODE ,VALUE( 16))  
 TYPE INTEGER CATCODE  
 EQUIVALENCE(MAJOR ,VALUE( 17))  
 TYPE INTEGER MAJOR  
 EQUIVALENCE(MINOR ,VALUE( 18))  
 TYPE INTEGER MINOR  
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 TYPE INTEGER OWSIG  
 EQUIVALENCE(TASK ,VALUE( 20))  
 TYPE INTEGER TASK  
 EQUIVALENCE(POSTURE ,VALUE( 21))  
 TYPE INTEGER POSTURE  
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 TYPE INTEGER INDEXNO  
 EQUIVALENCE(IMPERSO ,VALUE( 23))  
 TYPE INTEGER IMPERSO  
 EQUIVALENCE(IMP SITE ,VALUE( 24))  
 TYPE INTEGER IMP SITE  
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 EQUIVALENCE(INDINCOM ,VALUE( 26))  
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 TYPE INTEGER ZONE  
 EQUIVALENCE(AREA ,VALUE( 29))  
 TYPE REAL AREA  
 EQUIVALENCE(LAT ,VALUE( 30))  
 TYPE REAL LAT  
 EQUIVALENCE(LONG ,VALUE( 31))  
 TYPE REAL LONG  
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 TYPE INTEGER LEGNO  
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 TYPE INTEGER NEXTZONE  
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 TYPE INTEGER POINT  
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 TYPE REAL ATEDOUT  
 EQUIVALENCE(PUP ,VALUE( 39))  
 TYPE REAL PUP

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TYPE INTEGER IIGM
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TYPE INTEGER LARDEFH
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TYPE INTEGER LARDEFH
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TYPE INTEGER LARDEFH
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TYPE INTEGER LARDEFH
EQUIVALENCE(LARDEFH, *VALUE( 55))
TYPE INTEGER LARDEFH
EQUIVALENCE(LARDEFH, *VALUE( 56))
TYPE INTEGER LARDEFH
EQUIVALENCE(LARDEFH, *VALUE( 57))
TYPE INTEGER LARDEFH
EQUIVALENCE(LARDEFH, *VALUE( 58))
TYPE INTEGER LARDEFH
EQUIVALENCE(LARDEFH, *VALUE( 59))
TYPE INTEGER LARDEFH
EQUIVALENCE(LARDEFH, *VALUE( 60))
TYPE INTEGER LARDEFH
EQUIVALENCE(LARDEFH, *VALUE( 61))
TYPE INTEGER LARDEFH
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TYPE INTEGER LARDEFH
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TYPE INTEGER LARDEFH
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TYPE INTEGER LARDEFH
EQUIVALENCE(LARDEFH, *VALUE( 65))
TYPE INTEGER LARDEFH
EQUIVALENCE(LARDEFH, *VALUE( 66))
TYPE INTEGER LARDEFH
EQUIVALENCE(LARDEFH, *VALUE( 67))
TYPE INTEGER LARDEFH

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EQUIVALENCE(FVALT2, \*VALUE( 68))  
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 TYPE REAL MAXFRACV  
 EQUIVALENCE(MAXFACTV, \*VALUE( 72))  
 TYPE REAL MAXFACTV  
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 TYPE REAL YIELD  
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 TYPE INTEGER NOMOMR1  
 EQUIVALENCE(NOMOMR2, \*VALUE( 75))  
 TYPE INTEGER NOMOMR2  
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 TYPE INTEGER MCA  
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 TYPE INTEGER PAYLOAD  
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 TYPE INTEGER ISEP  
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 TYPE REAL PHID  
 EQUIVALENCE(CEP, \*VALUE( 81))  
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 EQUIVALENCE(RANGE, \*VALUE( 82))  
 TYPE REAL RANGE  
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 TYPE REAL MANGENEC  
 EQUIVALENCE(RANGERE, \*VALUE( 84))  
 TYPE REAL RANGERE  
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 TYPE REAL SPEED  
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 TYPE REAL ALERTINL  
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 TYPE REAL MALRTINL  
 EQUIVALENCE(ALERTOLY, \*VALUE( 92))  
 TYPE REAL ALERTOLY  
 EQUIVALENCE(MALRTOLY, \*VALUE( 93))  
 TYPE REAL MALRTOLY  
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 TYPE REAL COCEL  
 EQUIVALENCE(TTOS, \*VALUE( 95))  
 TYPE REAL TTOS

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 TYPE REAL T\*DEL  
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 TYPE REAL TV\*UL  
 EQUIVALENCE(T\*ETARG, \*VALUE( 98))  
 TYPE REAL T\*ETARG  
 EQUIVALENCE(PL\*INT, \*VALUE( 99))  
 TYPE REAL PL\*INT  
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 TYPE REAL A\*DATE  
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 TYPE REAL IMP\*ST  
 EQUIVALENCE(P\*IC, \*VALUE( 102))  
 TYPE REAL P\*IC  
 EQUIVALENCE(P\*RS, \*VALUE( 103))  
 TYPE REAL P\*RS  
 EQUIVALENCE(P\*RF, \*VALUE( 104))  
 TYPE REAL P\*RF  
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 EQUIVALENCE(AT\*LEG, \*VALUE( 106))  
 TYPE REAL AT\*LEG  
 EQUIVALENCE(AT\*CORR, \*VALUE( 107))  
 TYPE REAL AT\*CORR  
 EQUIVALENCE(K\*STYL, \*VALUE( 108))  
 TYPE INTEGER K\*STYL  
 EQUIVALENCE(U\*FRANG, \*VALUE( 109))  
 TYPE REAL U\*FRANG  
 EQUIVALENCE(M\*LOATH, \*VALUE( 110))  
 TYPE REAL M\*LOATH  
 EQUIVALENCE(AT\*RSUPP, \*VALUE( 111))  
 TYPE REAL AT\*RSUPP  
 EQUIVALENCE(I\*TYPP, \*VALUE( 112))  
 TYPE INTEGER I\*TYPP  
 EQUIVALENCE(E\*ECTNES, \*VALUE( 113))  
 TYPE REAL E\*ECTNES  
 EQUIVALENCE(I\*SITE, \*VALUE( 114))  
 TYPE INTEGER I\*SITE  
 EQUIVALENCE(I\*V\*LN, \*VALUE( 115))  
 TYPE INTEGER I\*V\*LN  
 EQUIVALENCE(M\*ADNLI, \*VALUE( 116))  
 TYPE REAL M\*ADNLI  
 EQUIVALENCE(M\*ADNLM, \*VALUE( 117))  
 TYPE REAL M\*ADNLM  
 EQUIVALENCE(A\*PLI, \*VALUE( 118))  
 TYPE REAL A\*PLI  
 EQUIVALENCE(IN\*DEDEC, \*VALUE( 119))  
 TYPE INTEGER IN\*DEDEC  
 EQUIVALENCE(N\*PMUS, \*VALUE( 120))  
 TYPE INTEGER N\*PMUS  
 EQUIVALENCE(IN\*INT, \*VALUE( 121))  
 TYPE INTEGER IN\*INT  
 EQUIVALENCE(A\*HLM, \*VALUE( 122))  
 TYPE REAL A\*HLM  
 EQUIVALENCE(T\*MEN, \*VALUE( 123))  
 TYPE REAL T\*MEN

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EQUIVALENCE(TIME) *VALUE( 124))
TYPE REAL TIME
EQUIVALENCE(DELAY) *VALUE( 125))
TYPE REAL DELAY
EQUIVALENCE(IALERT) *VALUF( 126))
TYPE INTEGER IALERT
EQUIVALENCE(NKTYPE) *VALUE( 127))
TYPE INTEGER NKTYPE
EQUIVALENCE(IIDV) *VALUF( 128))
TYPE INTEGER IIDV
EQUIVALENCE(INTAR) *VALUE( 129))
TYPE INTEGER INTAR
EQUIVALENCE(EVENT) *VALUE( 130))
TYPE INTEGER EVENT
EQUIVALENCE(EVENTN) *VALUE( 131))
TYPE INTEGER EVENTN
EQUIVALENCE(PLACE) *VALUE( 132))
TYPE INTEGER PLACE
EQUIVALENCE(PLACEN) *VALUE( 133))
TYPE INTEGER PLACEN
EQUIVALENCE(IALT) *VALUE( 134))
TYPE INTEGER IALT
EQUIVALENCE(NPPNS) *VALUE( 135))
TYPE INTEGER NPPNS
EQUIVALENCE(NTARG) *VALUE( 136))
TYPE INTEGER NTARG
EQUIVALENCE(MCODE) *VALUE( 137))
TYPE INTEGER MCODE
EQUIVALENCE(CODE) *VALUE( 138))
TYPE INTEGER CODE
EQUIVALENCE(BCODE) *VALUE( 139))
TYPE INTEGER BCODE
EQUIVALENCE(IDUD) *VALUE( 140))
TYPE INTEGER IDUD
EQUIVALENCE(LAG) *VALUE( 141))
TYPE INTEGER LAG
EQUIVALENCE(AGY) *VALUE( 142))
TYPE INTEGER AGY
EQUIVALENCE(OGK) *VALUE( 143))
TYPE INTEGER OGK
EQUIVALENCE(UGY) *VALUE( 144))
TYPE INTEGER UGY
EQUIVALENCE(DSY) *VALUE( 145))
TYPE INTEGER DSY
EQUIVALENCE(AMCB) *VALUE( 146))
TYPE INTEGER AMCB
EQUIVALENCE(DHOB) *VALUE( 147))
TYPE INTEGER DHOB
EQUIVALENCE(MMDTYPE) *VALUE( 148))
TYPE INTEGER MMDTYPE
EQUIVALENCE(PRIMETAR) *VALUE( 149))
TYPE INTEGER PRIMETAR
EQUIVALENCE(ICLASST) *VALUE( 150))
TYPE INTEGER ICLASST
EQUIVALENCE(ITYPE) *VALUF( 151))
TYPE INTEGER ITYPE
EQUIVALENCE(JTYPE) *VALUE( 151))
TYPE INTEGER JTYPE

```

EQUIVALENCE(TYPET ,VALUE( 152))  
TYPE INTEGER TYBET  
EQUIVALENCE(CLASST ,VALUE( 153))  
TYPE INTEGER CLASST  
EQUIVALENCE(ONTYOMNT,VALUE( 154))  
TYPE INTEGER ONTYOMNT  
EQUIVALENCE(ONTYLOCT,VALUE( 155))  
TYPE INTEGER ONTYLOCT  
EQUIVALENCE(IPENMODE,VALUE( 156))  
TYPE INTEGER IPENMODE  
EQUIVALENCE(IHECODE,VALUE( 157))  
TYPE INTEGER IHECODE  
EQUIVALENCE(IATTACK ,VALUE( 158))  
TYPE INTEGER IATTACK  
EQUIVALENCE(NAL ,VALUE( 159))  
TYPE INTEGER NAL  
EQUIVALENCE(TAM ,VALUE( 160))  
TYPE INTEGER TAM  
EQUIVALENCE(MHMDS ,VALUE( 161))  
TYPE INTEGER MHMDS  
EQUIVALENCE(MPEN ,VALUE( 162))  
TYPE INTEGER MPEN  
EQUIVALENCE(MDET ,VALUE( 163))  
TYPE INTEGER MDET  
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EQUIVALENCE(ADEFZON ,VALUE( 165))  
TYPE INTEGER ADEFZON  
EQUIVALENCE(ADEFCHP ,VALUE( 166))  
TYPE INTEGER ADEFCHP  
EQUIVALENCE(MAINT ,VALUE( 167))  
TYPE INTEGER MAINT  
EQUIVALENCE(AZON1 ,VALUE( 168))  
TYPE INTEGER AZON1  
EQUIVALENCE(AZON2 ,VALUE( 169))  
TYPE INTEGER AZON2  
EQUIVALENCE(AZON3 ,VALUE( 170))  
TYPE INTEGER AZON3  
EQUIVALENCE(CPACTY ,VALUE( 171))  
TYPE INTEGER CPACTY  
EQUIVALENCE(ICORR ,VALUE( 172))  
TYPE INTEGER ICORR  
EQUIVALENCE(IMTRV ,VALUE( 173))  
TYPE INTEGER IMTRV  
EQUIVALENCE(IUBL ,VALUE( 174))  
TYPE INTEGER IUBL  
EQUIVALENCE(PKNAV ,VALUE( 175))  
TYPE REAL PKNAV  
EQUIVALENCE(ITIME ,VALUE( 176))  
TYPE INTEGER ITIME  
EQUIVALENCE(PSASH ,VALUE( 177))  
TYPE REAL PSASH  
EQUIVALENCE(TPASH ,VALUE( 178))  
TYPE REAL TPASH  
EQUIVALENCE(TGTSTAT ,VALUE( 179))  
TYPE INTEGER TGTSTAT

```

EQUIVALENCE(FLAG,VALUE(180))
TYPE INTEGER FLAG
EQUIVALENCE(NUMBERS01,VALUE(181))
TYPE INTEGER NUMBERS01
EQUIVALENCE(NUMBERS02,VALUE(182))
TYPE INTEGER NUMBERS02
EQUIVALENCE(NUMBERS03,VALUE(183))
TYPE INTEGER NUMBERS03
EQUIVALENCE(NUMBER,VALUE(184))
TYPE INTEGER NUMBER
EQUIVALENCE(FECNES1,VALUE(185))
TYPE REAL FECNES1
EQUIVALENCE(FECNES2,VALUE(186))
TYPE REAL FECNES2
EQUIVALENCE(VAL1,VALUE(187))
TYPE REAL VAL1
EQUIVALENCE(VAL2,VALUE(188))
TYPE REAL VAL2
EQUIVALENCE(TYPE1,VALUE(189))
TYPE INTEGER TYPE1
EQUIVALENCE(TYPE2,VALUE(190))
TYPE INTEGER TYPE2
CALL STORAGE
DESIGNS=AA999
MOPRINT=1
MYIDENT=BMPLA:SET
CALL VPLA:SET
CALL ALLOCIP
CALL INITAPE
CALL INITLKS
ITP=LINE
MYIDENT=7H0H:1:EX
CALL SETREAD
MOPRINT=0
IDATE=INDATE
IDENTNO=INTIME (ITP)
53 CALL SKIPFILE (ITP)
54 CONTINUE
165 IF (UNIT,ITP) 165,166,1652,1654
1652 PRINT 1653
1653 FORMAT (15H EOF ON INDEX04 )
GO TO 1656
1654 PRINT 1655
1655 FORMAT (22H PARITY ERR ON INDEX04 )
1656 CALL AMORT
166 CALL TEHMTAPE
ITP = LEND
NTYPS=CUMNO(3)
PRINT 101
101 FORMAT (8H1PLA:SET//)
HALERT=2
READ 99,(PG(I),I=1,8)
READ 98,(PG(I),I=9,12)
READ 99,(PA(I),I=1,8)
READ 98,(PA(I),I=9,12)

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105000



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```

      READ 99,(0G:1),I=1,8)
      READ 99,(0A:1),I=1,8)
      FORMAT(4F10.5)
      99  FORMAT(9F10.5)
      K=0
      175 READ 170,(REGN(I),I=1,8)
      170  FORMAT(8A8.2X)
      DO 171 I=1,8
        J=I*N
        IF(REGN(I).EQ.4H )172,173
      173  DECODE(174,REGN(I))REGN(I)
      174  FORMAT(8B.6)
      171  CONTINUE
      K=K+8
      GO TO 175
      172  CONTINUE
      168  IRETARG = 0
      169  CONTINUE
      105  FORMAT (AR)
      READ 105,INR
      105  IF (INR .EQ. 8-RETARGET) 180, 182
      180  IRETARG = 1
      PRINT 181
      181  FORMAT(79M0METARGETING HODE-NUM. MISSILES DERIVED FROM XPERSON,NO
        LALENT + NOINCOM IGNORED)
      GO TO 169
      182  CONTINUE
      184  IF (INR.EQ.3HRED .OR. I.R.EQ.4HBLUE) 106,107
      184  RANGE=0B=15
      LSIDE=INR
      GO TO 113
      107  DECODE(108,109,I,R) RANGE=0H
      108  FORMAT (FM.4)
      READ 105,LSIDE
      113  CONTINUE
      PRINT 102,RANGE,M0H
      102  FORMAT(10M0RANGE,M0H=,F7.3)
      PRINT 100,LSIDE
      100  FORMAT(1X,8(4H,2X))
      C    READ WEAPON LIST
      109  READ 110,(IN(I),I=1,4)
      PRINT 100,(IN(I), I = 1, 4)
      110  FORMAT (5(4H,2X))
      IF (IN(1).EQ.4H )120,111
      111  DO 118 I=1,4
        IF(IN(I).EQ.4H )112,112
      112  DO 114 K=1,NTIPS
        IF((IN(I).EQ.TYPERAME(K))116,114
      114  CONTINUE
      PRINT 115,IN(I)
      115  FORMAT(6H0ERMON,2X,4H,1X,17HNOT A WEAPON, TYPE )
      GO TO 118
      116  CHC(K)=I
      114  CONTINUE
      GO TO 109
      120  CONTINUE

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C
  READ 99, DMAXOHL
  DMAXOHL = MAX(0, DMAXOHL, .000001)
  PRINT 97, DMAXOHL
  97 FORMAT(24H0MAXIMUM SPREAD IN OHL =F10.6)

C
  READ LIST OF TARGET CLASSES AND VALUES
  NCLASSES=0
  PRINT 125
  125 FORMAT(53H ICLASS TARGET NAME DESIG VALUE CLASSNAME)
  121 READ 127, (IN(1), I=1, 3), FIN(4), IN(5)
  122 FORMAT(4X, I2, 2(4X, 2X), F10.0, 4X)
  IF (IN(3).EQ.0) 140, 1220
  1220 ICLSNO=IN(1)
  IF ((ICLSNO-1)*(NTARCLS-ICLSNO)) 127, 1240, 1240
  1240 IF (IN(5).NE.0)
    1241 PRINT 128, ICLSNO, IN(2), IN(3), FIN(4), CLASSNAME(ICLSNO)
  128 FORMAT(2X, I5, 6X, 4X, 4X, 2X, F7.3, 2X, 4X)
  130 CLASSVAL(ICLSNO)=+1.0
  NDEXEMPL(ICLSNO)=IN(3)
  EXEMPL(ICLSNO)=FIN(4)
  GO TO 121
  127 PRINT 129, IN(1)
  129 FORMAT(6HERROR, 2X, I2, 14, 11HNOT A CLASS )
  GO TO 121
  140 CONTINUE
  NTPS=CUMNO(12)
  DO 150 I=1, NTPS
    IF (CHK(I).EQ.0) 149, 149
  149 NTYPE=NTYPE+1
    LTYPE(I)=NTYPE
  GO TO 150
  149 LTYPE(I)=0
  150 CONTINUE

C
  CALL SHUFFLE
  READ 155, JJJTGTIS, JJJG0, JJJCPX
  155 FORMAT (4X, 2X, 4X, 2X, 4X)
  ITPALTRT
  MYIDENT=HMSKATCH
  CALL SETDATE
  MYIDENT=HMSKATCH
  ITPALTRP 5 CALL SETDATE
  MYIDENT=0
  NMULT=0 5 MAXICOMP=0
  NTAN=0
  N30HRS=TANKS0
  INITIAL FOR POINT DATA
  5100 NQPT=0
  NCORR = 2
  NOPEN=0
  NRECOVER=0
  NREF=0
  N30VNY=0
  NCORTYPE=0
  IF (LSUE .EQ. 4HVALUE) 5002, 5001

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5001 NSUR1=0
    NSUR2=0
    GO TO 5003
5002 NSUR1=100
    NSUR2=200
5003 CONTINUE
    CALL INITEDII(LTOR)
    CALL INPITEM
    BEGIN D.R. PASS
C 200 CONTINUE
CHECK IF TARGET IS A BOMBER RECOVERY CASE
  IF(CPACTY.GT.0)899,201
899 IF(SIDE.EQ.LSINE)901,201
901 NRECOVER=NRECOVER+1
902 IF(NRECOVER.GT.NRECOVER) 902,903
902 ICHKFLG(8)=RMHCV BASE
    ICHKNUM(8)=NRECOVER
    GO TO 201
903 LINKR(NRECOVER)=LINK
    RECLAT(NRECOVER)=LAT
    RECLON(NRECOVER)=LONG
    IRECPCT(NRECOVER)=CPACTY
    INPREC(NRECOVER)=INDEXNO
201 IF(ICLASS.EQ.0)1001,219
219 IF(SIDE.EQ.LSINE)303,220
220 IF(CLASVAL(ICLASS).EQ.0)371,225
C HERE FOR TARGETS
C ADD RELATIVE VALUES
225 CONTINUE
    CUMVAL(ICLASS)=CUMVAL(ICLASS)+VAL
    IF INDEXNO=0
226 PRINT 228,CLASNAME(ICLASS),NAME,DESIG,EXEMVAL(ICLASS)
228 FORMAT 1/21M EXEMPLAR TARGET FOR *AB,10M CLASS IS *AB,14M - DESIG
    *NO * *AS, RM VALUE *07,3)
    VALFAC(ICLASS)=EXEMVAL(ICLASS)/VAL
227 CONTINUE
    IF(ICLASS.GT.1)260,230
C HERE FOR MISSILES--MAK UP MULTIPLE TARGETS
230 IF(1/COMPLEX.EQ.0)240,231
231 IF(MULT.EQ.0)270,232
C TERMINATE MULT.TGT.BECAUSE MISSILE IS IN COMPLEX
232 ITPE=LTGT
    CALL WPMULT
    GO TO 270
240 NSITES=NOPERSON/NMPSITE
    IF(NSITES.EQ.1)260,241
241 IF(MULT.GT.0)245,242
C BEGIN NEW MULT.TGT.
242 IS=1
    GO TO 1020
243 DO 244 K=1,31
244 MULT(K)=ITD(K)
    NTARGET=NTARGET+1
    NGTST=NGTST+1
C HERE TO CONTINUE MULT. TGT.
245 NMULT=NMULT+1

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MLTX(1,NMULT)=NAME
MLTX(2,NMULT)=INDEXNO
MLTX(3,NMULT)=DESIG
MLTX(4,NMULT)=TASK
MLTX(5,NMULT)=CENTRYLOC
MLTX(6,NMULT)=FLAG
MLTX(7,NMULT)=LAT
MLTX(8,NMULT)=LONG
IF(IISITE.LT.-SITES).AND.(NMULT.LI.5).371,250
C 250 ITP=LTGT
    CALL WRMULT
    GO TO 371
C 260 IF(NMULT.EQ.0)265,261
    NON=MISSILES HERE
    261 ITP=LTGT
    CALL WRMULT
    265 IF(ICOPLX.GT.0)270,266
    HERE FOR INDIVIDUAL TARGETS
    266 NTGTS=NTGTS+1
    NTARGETAR+1
    IS=2 & GO TO 1020
    268 ITP=LTGT
    CALL WRARRAY(ITD,31)
    GO TO 371
C 270 K=ICOPLX
    COLLECT COMPLEX TGT. DATA
    NCPX(K)=NCPX(K)+1
    IF(K.LE.MAXICOMP)272,271
    271 MAXICOMP=K
    272 IS=3 & GO TO 1020
    273 ITD(30)=2
    IF(NCPX(K).GT.1)280,275
    275 ITD(30)=1
    NCOMPLEX=NCOMPLEX+1
    NTGTS=NTGTS+1
    NTARGETAR+1
    280 ITD(7)=K
    ITP=LTGT
    CALL WRARRAY(ITD,31)
    GO TO 371
    1020 ITD(1)=NAME
    ITD(2)=INDEXNO
    ITD(3)=DESIG
    ITD(4)=TASK
    ITD(5)=CENTRYLOC
    ITD(6)=FLAG
    ITD(7)=J
    ITD(8)=LAT
    ITD(9)=LONG
    ITD(10)=RADIUS
    ITD(11)=VAL
    ITD(12)=1
    IF(FVAL*1.EQ.1.0)1024,1022
    1022 ITD(12)=2
    ITD(14)=VLRADP(1,0)2,0,0,FN

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1:24 TD(13)=VLWADP(1.0,M1.0.0.0.FH)
TD(15)=FVALM1
TD(16)=1
IF(FVALT1.EQ. 1.0)1032,1024
1:24 IF(FVALT1.EQ. 1.0)1032,1024
1:24 IF(FVALT1 +FVALT2.EQ. 1.0) 1030,1024
1:24 TD(16)=3
TD(21)=F3
TD(20)=F2
TD(18)=FVALT2
TD(19)=F1
TD(17)=FVALT1
TD(22)=CLASMAE(TCLASS)
TD(23)=ICLASS
TD(24)=TYPE
TD(25)=TARDEF 41
TD(26)=NTINT
TD(27)=TKILL
TD(28)=MAXKILL
TD(29)=MAXFRACY
CSHRH - PLANDAT1 15SEP71 *****
TD(30)=0
TD(31)=0
GO TO (243+264+273)IS*
C HERE FOR WEAPONS
C MAKE UP WEAPON GROUPS, ASSIGN IGROUP AND IYPE
C 303 IF(SITE.GT.1)371,304
C SPECT SPECIFIED WEAPONS
C 304 IF(CHK(IYPE).EQ.0)371,306
C 306 CONTINUE
C 307 CONTINUE
IF(ICLASS.EQ.3)369,307
IF(CHK(IYPE).GT.1)1204,1201
1201 CHK(IYPE)=2
REDUCE(IYPE)=1.
IF (INETARG) 1300, 1320
1304 IF (ICLASS .GT. 1) 1320, 1301
1301 CONTINUE
CHANGE REL
MC= RA
CALL CHANGE
GO TO (1302, 1303, 1304, 1305, 1306) INEP
C
C NO REPROGRAMMING
C 1302 REDUCE(IYPE) = 1.
RDL(IYPE) = ALRTDHL
REL = PINC * (1. - PLABT) * (1. - PFPF)
GO TO 1320
C
C REPROGRAMMING FOR IN COMMISSION
C 1303 REDUCE(IYPE) = PINC
RDL(IYPE) = ALRTDHL
REL = (1. - PLABT) * (1. - PFPF)
GO TO 1320

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2000  
3000  
6000  
7000  
8000  
9000  
10000  
11000  
12000  
13000  
14000  
15000  
16000  
16010  
16020  
16030  
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16050  
  
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16100  
16110  
16120  
16130  
16140  
16150  
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16180  
16190  
16200

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C
C REPROGRAMMING FOR DESTRUCTION BEFORE LAUNCH
C
1304 IF (FUNCTION.EQ.4HSLM) 1303, 1310
1310 REDUCE(ITYPE) = PINC * (1. - ALERTOBL)
RDL(ITYPE) = 0.
REL = (1. - PLABT) * (1. - PPF)
GO TO 1320

C
C REPROGRAMMING THROUGH LAUNCH
C
1305 IF (FUNCTION.EQ.4HSLM) 1311, 1312
1311 REDUCE(ITYPE) = PINC * (1. - PLABT)
RDL(ITYPE) = ALERTOBL
GO TO 1313
1312 REDUCE(ITYPE) = PINC * (1. - PLABT) * (1. - ALERTOBL)
RDL(ITYPE) = 0.
1313 REL = 1. - PPF
GO TO 1320

C
C REPROGRAMMING THROUGH POWERED FLIGHT
C
1306 IF (FUNCTION.EQ.4HSLM) 1314, 1315
1314 REDUCE(ITYPE) = PINC * (1. - PLABT) * (1. - PPF)
RDL(ITYPE) = ALERTOBL
GO TO 1316
1315 REDUCE(ITYPE) = PINC * (1. - ALERTOBL) * (1. - PLABT) * (1. - PPF)
RDL(ITYPE) = 0.
1316 REL = 1.
1320 CONTINUE

C
C GET TYPE DATA
I=ITYPE(ITYPE)
WTP(1,1)=TYPE
WTP(2,1)=RANGF
WTP(3,1)=CEP
WTP(4,1)=SPEED
WTP(5,1)=ALERTOLY
WTP(6,1)=ALERTOLY
WTP(7,1)=RANGDEC
WTP(8,1)=ICLASS
IF(1CLASS.GT.1)1204,1203
1203 WTP(9,1)=NOPERSON * REDUCE(ITYPE)
WTP(10,1)=ITYPE
GO TO 1205
1204 WTP(9,1)=INCOM
WTP(10,1)=ITYPE-CUMNO(1)
1205 CONTINUE
WTP(10,1)=WTP(4,1)
WTP(11,1)=SPOLO
WTP(12,1)=SPUASH
WTP(13,1)=RANGREF
WTP(14,1)=REL
WTP(15,1)=MPOSITE
WTP(16,1)=IREP
WTP(17,1)=IPECMODE
IF(IREFUEL.NE.-3)1207,1206

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16210  
16220  
16230  
16240  
16250  
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16270  
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16300  
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16350  
16360  
16370  
16380  
16390  
16400  
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1206 I=TP(17,I)=1
1207 CONTINUE
1208 I=TP(18,I)=FUNCTION
C IFENCODE HERE. EQUALS 1 FOR CORRIDOR, 0 FOR NON CORRIDOR
IF(FUNCTION.EQ.3)MTAC(1210,1211
1210 I=TP(18,I)=0
GO TO 1208
1211 I=TP(18,I)=1
1208 CONTINUE
IF(RESERVE.EQ.0)371,304
374 CONTINUE
IF (INETARG) 1321, 1323
1321 CONTINUE
IF (ICLASS.EQ.1) 1322, 1323
1322 CONTINUE
CHANGE NOPERSON
NC= 23
CALL CHANGE
NOPERSON = REPUCE(ITYPE) * NOPERSON
CHANGE NOALERT
NC= 25
CALL CHANGE
NOALERT = NOPERSON
CHANGE ALERTINBL
NC= 30
CALL CHANGE
ALERTINBL = RDHL(ITYPE)
1323 CONTINUE
DLAT=RANGEMOD*PI/50.
DLONG=DLAT/COSF(LAT*.01745)
MTOTPRASF=MTOT*4SF*1
WMD=1000
IF (EXFUEL.NE.-2)374,373
373 CONTINUE
CHANGE NOINCOM
NC= 26
CALL CHANGE
NINCOM = 5*NINCOM
CHANGE NOALERT
NC= 24
CALL CHANGE
NOALERT = 5*NOALERT
374 CONTINUE
C COMPUTE YIELD AND NO. OF WEAPONS
IF (ICLASS.GT.1)313,310
310 CONTINUE
NINCOM = NOPERSON
NRAS1
NRLE=PLD(1,PAYLOAD)
MSUR = IPLO(2,PAYLOAD)
YLD = WPO(1,MSUR)
IF (IPLO(1),PAYLOAD)314,3103
3102 WRAENYV4SF(PAYLOAD)
YLD=YLD+NRAS1
3103 IF (NRLE.EQ.1)314,311
311 YLD=YLD+NRLE*0.5
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52080
52100
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52140
52160
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355 NG=IGRP(12,L)
C  LIMIT NO. OF BASES TO 150 PER GROUP
  IF (NG*GE-150) 350,410
  *10 CONTINUE
  NMDX=IGRP(1,L)*NX*RA
  IF (NMDX*GI-M*HD) 350,603
C
C  CHECK NAVAL PARAMETERS
C
603 IF (IDRL - IGRP(13,L)) 350, 630, 350
630 IF (ARSE(PNAV - GRP(14,L)) .LT. .005) 640, 350
640 IF (ISPLIT) 642, 641
641 NOLD = NX
642 NLEFT = NX - NALLOW(L)
  ASSIGN 645 TO NEXTGRP
  ISPLIT = 0
  IF (NLEFT) 611, 611, 643
643 NX = NALLOW(L)
  NMDX = IGRP(1,L) * NX * WIA
  ISPLIT = 1
  NSPLIT = NSPLIT + NX
611 IGRP(1,L) = NMDX
  IGRP(2,L) = NX = IGRP(2,L) + NX
  GRP(3,L) = (NG*GRP(3,L) + LAT) / (NG+1)
  TLONG = LONG
  GLONG = GRP(4,L)
  DX = GLONG - LONG
  IF (ABS(DX) * LF, 180.) 389, 386
386 IF (DX) 387, 388, 388
387 TLONG = TLONG - 360.
  GO TO 389
388 GLONG = GLONG - 360.
389 GLONG = (NG*GLONG + TLONG) / (NG+1)
390 IF (GLONG) 390, 391, 391
390 GRP(4,L) = GLONG - 360.
  GO TO 392
391 GRP(4,L) = GLONG
392 CONTINUE
  GRP(10,L) = GRP(10,L) + YLD * NX
  IGRP(12,L) = NG + 1
  IF (IDRL .GT. 0) 612, 365
612 ISTR = NX * NX
  TT = TIMESTR(L) - DELTA
  SUMDBL = 0.0
  DO 613 J = 1, NX
  TT = TT + DELTA
613 SUMDBL = SUMDBL + DBLCALC(TT, IDRL)
  GRP(8,L) = (ISTR + GRP(8,L) + SUMDBL) / NX
  GO TO 365
C  FORM NEW GROUP
360 IGRP(1,L) = NX * NHA
  IGRP(2,L) = NX
  ASSIGN 647 TO NEXTGRP
  NALLOW(L) = 1000000
  IF (ISPLIT) 619, 618
618 NOLD = NX

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619 GRP(3,L) = LAT
    GRP(4,L) = LONG
    IGRP(5,L) = IREG
    IGRP(6,L) = ITYPE
    IGRP(7,L) = IALERT
    IF (IALERT.EQ.2) 362,361
361 GRP(8,L) = ALERTDBL
    TIMESTR(L) = ALERTULY * NSPLIT * DELTA
    GO TO 363
362 GRP(8,L) = VALRTDBL
    TIMESTR(L) = VALRTULY * NSPLIT * DELTA
363 IF (GRP(8,L).EQ.0) 950,951
950 IF (FUNCTION.EQ.4) HSLRM:951,952
952 GRP(8,L) = .0000001
951 CONTINUE
    IGRP(13,L) = IDBL
    GRP(14,L) = PKNAV
    NX = NX
    GO TO (606,607),ICLASS
606 IGRP(9,L) = PAYLOAD
    GO TO 608
607 CONTINUE
    IGRP(9,L) = REFUEL
608 CONTINUE
    GRP(10,L) = YLO * NX
    IGRP(11,L) = ISTART
    IGRP(12,L) = 1
    NGROUP = NGROUP + 1
    IF (IDBL.GT.9) 614,365
614 ISPLIT = 0
    NST = DBLCALC(TIMESTR(L), IDBL)
615 TIMEA = TIMESTR(L) * (NX - 1) * DELTA
    DELDBL = DBLCALC(TIMEA, IDBL) - NST
616 NX = NX / 2 * 1
    ISPLIT = 1
    GO TO 615
617 NSPLIT = NSPLIT * NX
    IGRP(1,L) = NX * NBA
    IGRP(2,L) = NX
    NX = NX
    GRP(19,L) = YLU * NX
    NALLOW(L) = NX
    TT = TIMESTR(L) - DELTA
    SUMDBL = 0.0
    DO 644 J = 1, NX
    TT = TT * DELTA
644 SUMDBL = SUMDBL + DBLCALC(TT, IDBL)
365 CONTINUE
    IGRP(1,L) = L
    IGRP(2,L) = INDEXNO
    GRPX(3,L) = LAT
    GRPX(4,L) = LONG
    IGRP(5,L) = PAYLOAD
    IGRP(6,L) = ISTART * LSIF * NX

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ITP=LTGRP
CALL WARRAY(IGRPX,NWDBASE)
GO TO NEXTGRP
645 IF (NLEFT) 621, 621, 646
646 ISTART = ISTART + NX
NX = NLEFT
GO TO 350
647 IF (ISPLIT) 620, 621
620 ISTART = ISTART + NX
NX = NOLD - NSPLIT
L = L + 1
IF (L.GT. MAXNGRP) 351, 360
621 NSPLIT = 0
GO TO (366,371)CSW
366 IALERT=2
ISTART=NOALERT + 1
OLAT=2.*OLAT
OLONG=2.*OLONG
NX=MINCOM-NOALERT
LS=2
GO TO 330
369 CONTINUE
LTANK(1)=INDEXNO
TANK(2)=LAT
TANK(3)=LONG
LTANK(4)=IREFUEL
LTANK(5)=KINCOM
LTANK(6)=NOALERT
TANK(7)=SPEED
TANK(8)=ALERTOLY
TANK(9)=ALERTIDLY
TANK(10)=TTOS
LTANK(11)=ITYPE-CUMNO(2)
TANK(12)=RANGE
ITP=LTGRP
IF (IREFUEL.GT.0.1800,801
801 IF (IREFUEL.LE.-4)807,803
803 IF (IREFUEL.EQ.0)811,804
804 PRINT A06,LAT, LONG, IREFUEL
806 FORMAT(2X,MODATABASE ERR-TANKER AT ,F8.4,1X,F8.4,1X,SHIPFUEL=,I3)
IF (IREFUEL.EQ.-3)807,371
807 CONTINUE
CHANGE IREFUEL
NC= 52
CALL CHANGE
IREFUEL=0
411 NTANK=TANK*NOINCOM
810 ITWORD=-4
GO TO 809
800 CONTINUE
ITWORD=-1
509 NTANKBAS=TANKBAS+1
CALL WWORD
CALL WARRAY(LTANK,12)
GO TO 371
1001 IF (CLASS.EQ. THWARHEAD)900,1002

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1002 IF(CLASS.EQ. 3-ASM) 910,1003
1003 IF (CLASS.EQ. 7HPAYLOAD) 920, 1004
1004 IF (CLASS.EQ. 7HOMLUATA) 930, 4999
C
4999 CONTINUE
IF (SIDE.EQ. LSIDE) 5004,5101
5004 IF (CLASS.EQ. 4MPPOINT) 5007,5015
5101 IF (CLASS.EQ. 4MPPOINT) 5005,5011
5005 IF (TYPE.EQ. 4-ZONE) 5006,5500
5006 I=IPOINT-NSUB1
IF (I.GT.MZONEPT) 700,701
700 ICHKFLG(1)=MZONE PTS
ICKNUM(1)=MAXOF(I,ICKNUM(1))
GO TO 371
701 RLAT(IPOINT-NSUB1)=LAT
RLONG(IPOINT-NSUB1)=LONG
GO TO 5500
5009 PRINT 5010,CLASS,TYPE
5010 FORMAT(6H CLASS,2X,4H,2X,4H TYPE,2X,AR,2X,7HUNK-OWN)
GO TO 5500
5011 IF (CLASS.EQ. 4HBOUNDARY) 5012,5500
5012 IPLACE=LEGNO-NSUR2
IF (IPLACE.GT. 4HNDRY) 5050,5051
5050 4HNDRY=IPLACE
5051 CONTINUE
710 ICHKFLG(2)=4HBOUNDARYS
ICKNUM(2)=MAXOF(ICKNUM(2),IPLACE)
GO TO 371
711 CONTINUE
IR(IPLACE)=IPOINT-NSUB1
LINKS(IPLACE)=LINK-NSUR2
ZONEB(IPLACE)=ZONE
NEXTZB(IPLACE)=NEXTZONE
GO TO 5500
5007 IF (TYPE.EQ. 4HROUT) 5008,5013
5008 IF (IPOINT.GT. 4HPT) 720,721
CSUBR
PLANDAT2 12MAY71 *****
720 ICHKFLG(3)=7HPT PTS
ICKNUM(3)=MAXOF(IPOINT,ICKNUM(3))
GO TO 371
721 RLAT(IPOINT)=LAT
RLONG(IPOINT)=LONG
GO TO 5500
5013 IF (TYPE.EQ. 4HREFUEL) 5014,5500
5014 IF (IREFUEL.GT. 4HREF) 730,731
730 ICHKFLG(4)=4HREF PTS
ICKNUM(4)=MAXOF(IREFUEL,ICKNUM(4))
GO TO 371
731 RFLAT(IREFUEL)=LAT
RFLONG(IREFUEL)=LONG
IF (IREFUEL.GT. 4HREF) 5057,5500
5057 NREF=IREFUEL
GO TO 5500
5015 IF (CLASS.EQ. 4HCORRIDOR) 5016,5021
5016 IF (TYPE.EQ. 4HLOWATT) 5016,5017

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5017 IF (TYPE.EQ.5MHATT) 5019,5040
5040 IF (TYPE.EQ.7MVLONATT) 5041,5042
5042 IF (TYPE.EQ.5HOUNAY) 5043,5040
5046 IF (TYPE.EQ.8HMAVALAIR) 5047,5009
5043 ITCORR=4
NCH=1
GO TO 5020
5047 ITCORR = 5
NCH = 2
GO TO 5020
5041 ITCORR=3
GO TO 5020
5018 ITCORR=1
GO TO 5020
5019 ITCORR=2
KORSTY(ITCORR)=KORSTYLE
MLOGAT(ITCORR)=MLOGATIR
DEFR(ITCORR)=DEFRANGE
ATTRS(ITCORR)=ATTRSUPP
ATTPC(ITCORR)=ATPCORR
IF (TYPE.EQ.5HOUNAY) .OR. (TYPE.EQ.8HMAVALAIR) 5044, 5045
5045 NCR=NCCORR+1
IF (NCCORR.GT. NCCORR) 740,741
740 ICHKFLG(5)=8HCCORRIDS
ICRNUM(5)=NCCORR
GO TO 371
741 CONTINUE
NCR=NCCORR
5044 IC(NCR)=IPOINT
LINKC(NCR)=LINK
ZORC(NCR)=ZONE
ITY(NCR)=ITCORR
GO TO 5500
5021 IF (CLASS.EQ.4HLEGS) 5022,5500
5023 IF (LEGNO.GT. MPTLEG) 750,751
750 ICHKFLG(6)=8HRTIE LESS
ICRNUM(6)=MAXOF (ICRNUM(6),LEGNO)
GO TO 371
751 IL(LEGNO)=IPOINT
LINK(LEGNO)=LINK
ATRL(LEGNO)=ATRLFG
IF (LEGNO.GT. ARTPT) 5058,5500
5058 ARTPT=LEGNO
GO TO 5500
5022 IF (TYPE.EQ.5MHOUTF) 5023,5024
5024 IF (TYPE.EQ.5HCEPEN) 5025,5009
5025 NOPEN=NOPEN+1
IF (NOPEN.GT. MDEPNLG) 740,761
760 ICHKFLG(7)=8HUPN LFGS
ICRNUM(7)=NOPEN
GO TO 371
761 CONTINUE
IN(NOPEN)=IPOINT
LINK(NOPEN)=LINK
GO TO 5500
5500 CONTINUE

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C
  GO TO 371
  WARHEAD DATA
  900 WHO(1,WHO TYPE)=YIELD
    WHO(2,WHO TYPE)=POUD
    WHO(3,WHO TYPE)=FFRAC
    WHO TYPE=XMAXOF(WHO TYPE,WHO TYPE)
  GO TO 371
C
  ASM DATA
  910 IASMT(1,ASMTYPE)=WHO TYPE
    ASMT(2,ASMTYPE)=RANGE
    ASMT(3,ASMTYPE)=REL
    ASMT(4,ASMTYPE)=CEP
    ASMT(5,ASMTYPE)=SPEED
    NASMTYPE=XMAXOF(NASMTYPE,ASMTYPE)
  GO TO 371
C
  PAYLOAD DATA
  920 IF(SIDE=NEALSIDE)371,919
  919 NPAYLOAD=PAYLOAD
    IF(MIRV,919,9195
  9190 IPLD(1,NPAYLOAD)=MIRV
    MTRVST(NPAYLOAD) = NOBOMB1
    IPLD(1, NPAYLOAD) = XMAXOF(1, NMHJS)
  GO TO 9210
  9195 IPLD(1, NPAYLOAD)=0.
    IF((NOBOMB1.EQ.0).AND.(NOBOMB2.EQ.0).AND.(NASMS.EQ.0))921,923
  921 IPLD(1, NPAYLOAD)=XMAXOF(1, NMHJS)
  9210 PLO(7, NPAYLOAD)=XDEG=1.0
  GO TO 924
  923 IPLD(1, NPAYLOAD)=NOBOMB1
    IPLD(7, NPAYLOAD)=NCM
  924 CONTINUE
    IPLD(2, NPAYLOAD)=WHO TYPE
    IPLD(3, NPAYLOAD)=NOBOMB2
    IPLD(4, NPAYLOAD)=WTP2
    IPLD(5, NPAYLOAD)=NASMS
    IPLD(6, NPAYLOAD)=ASMTYPE
    IPLD(8, NPAYLOAD)=NDECOYS
    IPLD(9, NPAYLOAD)=NAREADEC
  GO TO 371
C
  TIME DEPENDENT DBL DATA TABLES
C
  930 TRASH(ITIME, IOBL) = TRASH
    DRASH(ITIME, IOBL) = PSASH
    NTIMES(IOBL) = NTIMES(IOBL) + 1
  371 CONTINUE
    CALL NEXTITEM
    GO TO (200,400)ISWTERM
  400 CONTINUE
    END O.B. PASS
    PRINT 4423,NBOMB,NTANK
  4423 FORMAT(9H0NBOMB = ,I4,9H NTANK = ,I4)
    ILRTFLG=0
  4417 IF(NBOMB.LE.NTANK)4418,4436
  4436 DISTA=0.0
    JGRPSTOR=0

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DO 4413 L=1,NGROUP
  IF (IGRP(9,L).LE.-4) 4415,4413
  4415 IF (ILRTFLG) 4431,4430
  CHECK NON-ALERT FIRST, THEN ALERT
  4430 IF (IGRP(7,L).EQ.2) 4432,4413
  4431 IF (IGRP(7,L).EQ.1) 4432,4413
  4432 ITP=LTYPE(IGRP(6,L))
  RANGE=TP(2,IITP)
  IF (RANGE.GT.DISTA) 4414,4413
  C FIND LARGEST RANGE
  4414 DISTA=RANGE
  4415 JGRPSTOR=L
  4413 CONTINUE
  4433 IF (JGRPSTOR) 4416,4433
  4434 IF (ILRTFLG) 4434,4435
  4435 ILRTFLG=1
  GO TO 4436
  4434 PRINT 4437
  4437 FORMAT(35H10 MORE BOMBERS FOR TANKER BALANCE)
  GO TO 4418
  4416 IF (IGRP(9,JGRPSTOR).EQ.-4) 4419,4420
  4419 N=IGRP(2,JGRPSTOR)
  GO TO 4421
  4420 N=2+IGRP(2,JGRPSTOR)
  4421 NROMB=NROMB+N
  PRINT 4422,JGRPSTOR,IGRP(9,JGRPSTOR),NROMB,NANK
  4422 FORMAT(11HOFOR GROUP ,14,22H REFUEL CHANGED FROM ,12,
    116H TO 0 NROMB = ,14,9H NTANK = ,14)
  IGRP(9,JGRPSTOR)=0
  GO TO 4417
  4418 CONTINUE
  C GET VALUE FACTORS
  SUMVAL = 0.0
  DO 401 I=1,MTARCLS
  IF (VALFAC(I).EQ.0. .AND. EXEMVAL(I).NE.0.) 4001,4005
  4001 PRINT 4003, I
  4003 FORMAT(23H0EXEMPLAR TGT FOR CLASS,3X,13,20HNOT FOUND ON INDEX08,
    25H. CLASS VALUE SET TO ZERO//)
  4005 CUMVAL(I)=CUMVAL(I)+VALFAC(I)
  401 SUMVAL = SUMVAL + CUMVAL(I)
  SUMVALX = 1000. / SUMVAL
  PRINT 403
  403 FORMAT (19H1CLASSNAME CLASSVAL//)
  DO 402 I=1,MTARCLS
  CLASSVAL(I) = CUMVAL(I) / SUMVAL
  PRINT 404, CLASSNAME(I), CLASSVAL(I)
  404 FORMAT (2X,AB,1X,F6.3)
  402 VALFAC(I) = SUMVALX + VALFAC(I)
  GRP(10,I)=GRP(10,I)/IGRP(1,I)
  IGRP(6,I)=LTYPE(IGRP(6,I))
  DO 405 I=2,NGROUP
  GRP(10,I)=GRP(10,I)/IGRP(1,I)
  IGRP(6,I)=LTYPE(IGRP(6,I))
  405 CONTINUE
  ITP=LITGT
  ITD(2)=RMXXXXXXX

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C
CALL GRABRAY(ITD,31)
  ARRAY GRP(IGRP), SPILLED OUT TO PROVIDE SPACE FOR IGISORT
  JSIZE=14*(NGROUP+10)
CALL GRABRAY(IIRP,JSIZE)
CALL TERMTAPE
  ITP=LIGHTP
  ITORU=88HENDG+JUP
CALL WORD
CALL TERMTAPE
  INTAPE(1)=7HMT+FILE
  NREG=3
  NCLASS=2
  DO 415 I=1,MAXICOMP
    IF (ICOR(I).NE.1) 415,414
  414 *COMPLEX=COMPLEX-1
  415 CONTINUE
  NCURTYPE = 5
  INTAPE(1)=NTGTS
  PRINT 5102,LS1+E
  PRINT 5101
  DO 5036 I = 1, NCURTYPE
    5036 PRINT 5104,I,ICOR(I),HLOAT(I),UEFF(I) ,ATTS(I),ATTRC(I)
    PRINT 5103,NCORR
    DO 5028 I=1,NCORR
      II=IC(I)
      5028 PRINT 5106,I,LINK(I),PLAT(II),PLUNG(II),ZOMEC(II),ITY(II)
      PRINT 5105,NRTPT
      DO 5020 I=1,NRTPT
        II=IL(II)
        5020 PRINT 5106,I,LINK(I),PLAT(II),PLUNG(II),ATPL(II)
        PRINT 5107,NBPN
        DO 5030 I=1,NBPN
          II=IN(II)
          5030 PRINT 5104,I,LINK(I),PLAT(II),PLUNG(II)
          PRINT 5108,NBPCOVER
          DO 5031 I=1,NBPCOVER
            5031 PRINT 5104,I,LINK(I),FCLAT(I),FCLONG(I),FRECPCI(I),INOREC(I)
            PRINT 5109,NREF
            DO 5032 I=1,NREF
              5032 PRINT 5110,I,FPLAT(II),FPLONG(II)
              PRINT 5111,NBARY
              DO 5033 I=1,NBARY
                II=IR(II)
                5033 PRINT 5104,I,LINK(I),PLAT(II),PLUNG(II),ZOMEC(II),NEXTZ(I)
              C*****TERMINATE PUT IT DATA *****
              5102 FORMAT(///7H SIZE =,2X,AR//)
              5101 FORMAT(4X,1H1,2X,8HKKRSTYLE,2X,8HMILOITR,2X,8HUEFRANGE,2X,
                18HATTSUP,2X,4HATTRCORR
              5100 FORMAT(15,110,4F10.4)
              5103 FORMAT(///110,2X,6HCOORDS/4X,1H1,6X,4HLINK,7X,3HPLAT,6X,4HLONG,
                16X,4HZONE,7X,3HITY)
              5104 FORMAT(15,110,2F10.4,2F10.4,2F10.4)
              5105 FORMAT(///110,2X,12HROUTE POINTS/4X,1H1,6X,4HLINK,7X,3HPLAT,
                16X,4HLONG,3X,7HATTRLEG )
              5106 FORMAT(15,110,3F10.4)
              5107 FORMAT(///110,2X,5HDEPEN/4X,1H1,6X,4HLINK,7X,3HPLAT,6X,4HLONG )

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5108 FORMAT(/110,2X,7HRECOVER/4X,1HI,6X,4HLINK,7X,3MLAT,6X,4HLONG,
      *2X,8MCAPACITY,3X,7HINDEXNO)
5109 FORMAT(/110,2X,13HREFUEL POINTS/4X,1HI,7X,3MLAT,6X,4HLONG )
5110 FORMAT(15,2F10.4)
5111 FORMAT(/110,2X,10HBOUNDARIES/4X,1HI,6X,4HLINK,7X,3MLAT,6X,
      14HLONG,6X,4HZONE,2X,8HNEXTZONE)
      PRINT 3030
3030 FORMAT(14H1HARMHEAD TABLE//9H      YIELD,5X,6HPDUD,5X,5HFFAC//)
      PRINT 3031,((I=1,3),J=1,NHMDTYPE)
3031 FORMAT(2X,F8.4,2X,F8.6,2X,F8.6)
      PRINT 3035
3035 FORMAT(10H1ASM TABLE//10H      NPNTYPE,5X,5HFRANGE,7X,3HREL,7X,
      13HCEP,5X,5HSPD//)
      PRINT 3036,((I=1,3),J=1,NHMDTYPE)
3036 FORMAT(110,2X,F8.1,2X,F8.5,2X,F8.4,2X,F8.1)
      PRINT 3040
3040 FORMAT(14H1PAYLOAD TABLE//3X,7HNOBOMB,4X,6HINTYPE,3X,7HNOBOMB2,
      14X,6HINTYPE2,5X,5HNASMS,3X,7HNASMTYPE,7X,3HNCM,6X,4HNOEG,3X,
      27HNOECOYS,2X,6HNADECOYS,6X,4HNIIRV//)
      DO 3R J=1,NPAYLOAD
      IF (PLD(I,J)-1.0) 32,34,32
32 PRINT 33, ((I=1,10)
33 FORMAT (710,10X,3110)
      GO TO 38
34 PRINT 35, ((I=1,10)
35 FORMAT (610,15X,F5.3,3110)
38 CONTINUE
      PRINT 3045
3045 FORMAT(13HREGION TABLE//5X,5HCCREL/)
      PRINT 3046,((I=1,NREG)
3046 FORMAT(2X,F8.4)
      PRINT 3050
3050 FORMAT(11HWEAPON TYPE DATA//)
      NL=(NTYPE+9)/10
      DO 3055 M=1,NL
      M=10*M+1
      L=M-9
      PRINT 3051,((I=1,L,M)
3051 FORMAT(/10H1TYPE      ,10110)
      PRINT 3052, ((I=1,L,M),J=1,20)
3052 FORMAT(10H TYPE      ,10(2X,AR)/
      110H RANGE      ,10(2X,F8.1)/
      210H CEP      ,10(2X,F8.4)/
      310H SPD      ,10(2X,F8.1)/
      410H ALERTDLY ,10(2X,F8.4)/
      110H MALRTDLY ,10(2X,F8.4)/
      610H RANGEDEC ,10(2X,F8.4)/
      *10H ICLASS ,10(2X,I8)/
      810H NOPERSON ,10(2X,I8)/
      910H SPDMT ,10(2X,F8.1)/
      110H SPULO ,10(2X,F8.1)/
      210H SPDASH ,10(2X,F8.1)/
      310H RANGEREFR ,10(2X,F8.1)/
      410H REL ,10(2X,F8.6)/
      510H NMSITE ,10(2X,I8)/
      110H INEP ,10(2X,I8)/

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*104 IRECMODE ,10(2X,IR)/
*104 IPECMODE ,10(2X,IR)/
*104 ITYPE ,10(2X,IR)/
*104 FUNCTION ,10(2X,AB)
3055 CONTINUE
    DO 3021 I=1,NGROUP
      3021 CHK(I)=ITP(1,IGRP(6,I))
      PRINT 3003
    3003 FORMAT(18HWEAPON GROUP DATA//)
    NS=NGROUP*9/10
    DO 3020 M=1,N
      NS=M*10
      L=M-9
      PRINT 3004,(I,I=L,M)
    3004 FORMAT(10H1GROUP ,10I10)
      PRINT 3022,(CHK(I),I=L,M)
    3022 FORMAT(10X,10(2X,AB))
      PRINT 3005,(IGRP(1,I),I=L,M)
    3005 FORMAT(10H WPNS ,10I10)
      PRINT 3006,(IGRP(2,I),I=L,M)
    3006 FORMAT(10H NVEGRPP ,10I10)
      PRINT 3007,(GRP(3,I),I=L,M)
    3007 FORMAT(10H WLAT ,10(F10.4))
      PRINT 3008,(GRP(4,I),I=L,M)
    3008 FORMAT(10H WLONG ,10(F10.4))
      PRINT 3009,(IGRP(5,I),I=L,M)
    3009 FORMAT(10H IREC ,10I10)
      PRINT 3010,(IGRP(6,I),I=L,M)
    3010 FORMAT(10H LTYPE ,10I10)
      PRINT 3011,(IGRP(7,I),I=L,M)
    3011 FORMAT(10H IALERT ,10I10)
      PRINT 3012,(GRP(8,I),I=L,M)
    3012 FORMAT(10H DBL ,10(F10.6))
      PRINT 3013,(IGRP(9,I),I=L,M)
    3013 FORMAT(10H IREFUEL ,10I10)
      PRINT 3014,(GRP(10,I),I=L,M)
    3014 FORMAT(10H YIELD ,10(F10.4))
      PRINT 3015,(IGRP(11,I),I=L,M)
    3015 FORMAT(10H ISVART ,10I10)
      PRINT 3016,(IGRP(12,I),I=L,M)
    3016 FORMAT(10H NBASE ,10I10)
      PRINT 3017,(IGRP(13,I),I=L,M)
    3017 FORMAT(10H IDML ,10I10)
      PRINT 3018,(GRP(14,I),I=L,M)
    3018 FORMAT(10H PKNAV ,10(F10.6))
      PRINT 3019,(TIMESTRT(I),I=L,M)
    3019 FORMAT(10H TIMELAUN ,10(F10.6))
    3020 CONTINUE
      CALL AROVRFLY
      CALL SHUFFL1
      WRITE(44,999)
    999 FORMAT (41H ***** PROCESSOR PLANSET COMPLETED ***** )
      END

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5.4TS PLANSET

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IDENT PLANSET

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

PLANSET	IDENT	PLANSET
10270	00001	
01775	00001	
	00001	
	00001	
	00001	
	00014	
	00007	
	00026	
	00012	
	00074	
	04336	
	00014	
	04705	
	06117	
	00110	
	00003	
	00037	
	11610	
	04704	
	00047	
	00120	
	01173	
	00001	
	00015	

EXTERNAL SYMBOLS

QBQENTRY
THEND
01010100
01004100
02007101
01005100
00010100
STOPAGE
VPLANSET
ALOCIR
INITAPE
INITRLKS
SETHAD
SKIPFILE
ABORT
TEMPAPE
SHUFFLE
SETWHITE
INITEDIT
INPTTEM
WRMULT
WRARRAY
VLRADP
CHANGE
DBLCALC
WRNORD
NEXTITEM
AROVRELA

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5.4TS PLANSET

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ED

0

PAGE NO.

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SHUFFLI  
XMAXOF  
MAXIF  
COSF  
QAGIFUNI  
TSH.  
DEC.  
HFI.  
STH.  
QNSINGL.

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## 5.4TS PLANSSET

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CODE	06352	06354	06357	06360	06361	06362	06375	06414	06416	06421
06333	06352	06354	06357	06360	06361	06362	06375	06414	06416	06421
06422	06423	06436	06455	06457	06462	06463	06476	06512	06514	06515
06516	06517	06520	06533	06547	06551	06552	06565	06604	06606	06611
06612	06613	06614	06646	06700	06706	06747	06767	07021	07050	07104
07171	07212	07233	07254	07275	07316	07337	07360	07461	07422	07443
07464	07505	07526	07547	07570	07611					
07776	02672	04513	04514	04747	04750	05750	05751	06167	06170	06250
06251	07125	07127	03032							
03003	03003	03032	03032							
02071	02100	02120	02254	02274	02320	02337	02351	02372	02412	
02422	02450	02515	02550	02560	02643	02662	02723	02723	02723	02823
05132	05256	05733	06021	06101	06123	06143	06623	06623	06623	06623
06523	06423	06623	06623	06623	06623	06623	06623	06623	06623	06623
06866	06720	06726	06755	06775	07030	07036	07067	07116	07147	
07200	07221	07242	07263	07304	07325	07367	07410	07431	07452	
07473	07514	07535	07556	07577	07620	07637				
02055	02110	02110	02663	02663	03445	03665	05101			
03051	03051	03053	03053	04102	04102	04102	04102	04102	04102	04102
05710	05710	04707	04754							
02310	02363									
05434	05434	06316								
05433	05433									
04712	04713	04516	04516	04501	04501	04614	04614	04702	04703	04741
04504	04505	04510	04510							
04741	04752	04752	03055	03070	03153	03153	03302	03302		
02007	02007									
01777	02001	02004	02015	02020	02023	02026	02035	02046	02054	02060
02065	02070	02074	02077	02101	02104	02114	02117	02124	02140	02143
02157	02162	02176	02201	02215	02220	02234	02237	02253	02260	02273
02311	02317	02331	02339	02345	02350	02364	02371	02374	02401	02404
02411	02414	02421	02424	02440	02443	02457	02506	02514	02527	02534
02536	02543	02547	02554	02557	02562	02602	02624	02642	02654	02661
02704	02712	02722	02730	02737	02775	03001	03061	03074	03114	03200
03211	03227	03272	03332	03337	03354	03763	03766	03777	04013	04013
04024	04067	04315	04320	04521	04573	04710	04755	05004	05122	05131
04137	05154	05157	05225	05247	05255	05300	05330	05352	05507	05585
05605	05630	05647	05715	05724	05732	06015	06020	06041	06052	06073
06100	06117	06122	06135	06142	06207	06217	06223	06232	06235	06266
06272	06275	06300	06307	06322	06331	06364	06367	06373	06377	06377
06411	06425	06434	06440	06452	06465	06474	06500	06507	06522	06531
06535	06544	06554	06563	06567	06601	06616	06625	06630	06633	06657
06662	06665	06670	06717	06722	06740	06740	06754	06760	06774	07003
07006	07011	07027	07032	07035	07052	07066	07071	07115	07143	07146
07163	07177	07202	07220	07223	07241	07244	07247	07265	07303	07306

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P10146 DISTA	07324	07327	07345	07350	07366	07371	07407	07412	07430	07433	07451
P10167 DLAT	07454	07472	07475	07513	07518	07534	07537	07555	07560	07576	07601
P10170 DLONG	07617	07624	07627	07633	07636						
P10171 DMAXDHL	05741	05775	06000								
P10172 DST	03773	04000	04267	05045	05045						
P10173 DX	04001	04305	05046	05047							
C00437 EFECNES1	02532	02537	02540	02545	04713						
C04440 EFECNES2	04875	04712									
C03327 EFECTNES	04277	04277	04303	04303	04304	04426	04433				
P10125 ENDING.											
C00350 EVENT	07637										
C00351 EVENTN											
P00102 EXEMVAL	00124	02551	03071	03075	05067						
P00000 EXIT.	10125										
C00243 FFRAC	05562										
C00000 FIN	02574	02574	02635	02647	02650						
C00432 FLAG	03161	03161	03310	03310							
C00160 FLTNO											
C00037 FMLTX	03164	03164	03166	03166							
P00174 FN	03334	03341									
P00124 FORMAT.	02006	02012	02032	02274	02337	02352	02460	02463	02603	02616	02725
	02732	02741	02763	03016	03514	03533	03561	03720	04624	05163	05166
	05171	05174	05202	05205	05210	05222	05257	05275	05316	05325	05340
	05347	05370	05373	05376	05401	05404	05407	05441	05444	05475	05504
	05527	05532	05542	06204	06227	06237					
	03514	03514	03533	03533	03561	03561	03715	03715	03720	03720	04624
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C00245 FVALH1	03324	03324	03343	03343							
C00251 FVALT1	03346	03346	03352	03353	03370	03370					
C00252 FVALT2	03353	03364	03364	03364							
P02071 GG00001.	02063										
P02100 GG00002.	02072										
P02120 GG00003.	02112										
P02141 GG00004.	02122										
P02160 GG00005.	02141										
P02177 GG00006.	02160										
P02216 GG00007.	02177										
P02235 GG00010.	02216										
P02254 GG00011.	02235										
P02274 GG00012.	02256										
P02320 GG00013.	02307										
P02337 GG00014.	02327										
P02351 GG00015.	02343										
P02372 GG00016.	02362										
P02402 GG00017.	02372										
P02412 GG00020.	02402										
P02422 GG00021.	02412										
P02441 GG00022.	02422										
P02460 GG00023.	02441										
P02515 GG00024.	02504										
P02535 GG00025.	02525										

P02550	GG00026.	02541
P02560	GG00027.	02552
P02603	GG00030.	02560
P02643	GG00031.	02624
P02662	GG00032.	02652
P02723	GG00033.	02710
P03075	GG00034.	03057
P04321	GG00035.	04313
P05132	GG00036.	05120
P05256	GG00037.	05245
P05733	GG00040.	05722
P06021	GG00041.	06013
P06053	GG00042.	06037
P06101	GG00043.	06071
P06123	GG00044.	06115
P06143	GG00045.	06133
P06273	GG00046.	06264
P06301	GG00047.	06273
P06323	GG00050.	06395
P06336	GG00051.	06327
P06365	GG00052.	06345
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P06720	GG00070.	06666
P06726	GG00071.	06720
P06755	GG00072.	06736
P06775	GG00073.	06756
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P07030	GG00075.	07007
P07036	GG00076.	07030
P07067	GG00077.	07050
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P07147	GG00101.	07141
P07200	GG00102.	07161
P07221	GG00103.	07200
P07242	GG00104.	07221
P07263	GG00105.	07242
P07304	GG00106.	07263
P07325	GG00107.	07304
P07346	GG00110.	07325
P07367	GG00111.	07346
P07410	GG00112.	07367
P07431	GG00113.	07410



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P07452	GG00114.	07431
P07473	GG00115.	07452
P07514	GG00116.	07473
P07535	GG00117.	07514
P07556	GG00120.	07535
P07577	GG00121.	07556
P07620	GG00122.	07577
P07637	GG00123.	07620
P10175	GLONG	00424
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C00000	GRP	00423
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C00164	H2.	00630
C02051	HILOAT	00152
C00324	HILOATTR	07463
P10176	I	00773
C00000	GRP	03340
C00163	H1.	03333
C00164	H2.	05431
C02051	HILOAT	02127
C00324	HILOATTR	02211
P10176	I	02277
C00000	GRP	02466
C00163	H1.	05217
C00164	H2.	06144
C02051	HILOAT	06351
C00324	HILOATTR	06456
P10176	I	06574
C00000	GRP	06770
C00163	H1.	07165
C00164	H2.	07276
C02051	HILOAT	07436
C00324	HILOATTR	07571
P10176	I	00203
C00344	IALERT	04162
C00354	IALT	05305
C00224	IARDEF	05465
C00226	IASMT	03017
C00404	IATTACK	05455
C00000	IR	03021
C01510	IC	05457
C01440	ICMKELG	03036
C01464	ICMKNUM	03372
C00227	ICLASS	03736
C00373	ICLASSF	02607
P10177	ICLSNO	00367
C00372	ICNDX	00372
C00000	ICNUM	00000
C00235	ICOMPLEX	00000
C00422	ICORR	00422

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C00000	ITFMP	05205	06210						
C00236	ITGT	10665	10065						
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C00002	ITOUT	02031	02031	02047	02051	02056	02107	02724	02724
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		03270	05004	05004	05106	06203	06224	06226	
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C01236	ITP	03623	03623	03641	03641	03705	03713	03714	03717
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		05671	05671						
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P02624	.100002								
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P05166	.1002	05165							
P05171	.1003	05170							
P05174	.1004	05173							
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P03327	.1022	03326							
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P02560	.121	02651	02662						

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P04746 .365	04500	04537	04666	04666	
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P05054 .369	03432				
P05714 .371	03047	03174	03202	03275	03423
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P04125 .375	04124				
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P04141 .377	04140				
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P04156 .379	04155				
P04174 .380	04155				
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P04436 .387	04434				
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P04464 .391	04457				
P04467 .392	04463				
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P05777 .4414	06254				
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P02746 .5001	02764				
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P05202 .5004	05201				

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P04722 .617  
P04552 .618  
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P04632	..951	04626
P04637	..952	02610
P10127	..ERASER.	03552
		04275
		06214
		02006
P00124	..100000	02045
P00223	..100	02012
P00135	..100001	02032
P00128	..100002	02030
P00163	..100003	02340
P00172	..100004	02353
P00121	..100005	02355
P00211	..100006	02461
P0J240	..100007	02470
P00241	..100008	02604
P00311	..100009	02617
P00312	..100010	02725
P00350	..100011	02732
P00351	..100012	02741
P00352	..100013	02764
P00353	..100014	03016
P00354	..100015	03515
P00640	..100016	03534
P00401	..100017	03562
P00402	..100018	03721
P00403	..100019	04625
P00402	..100020	05164
P00412	..100021	05167
P00430	..100022	05172
P00431	..100023	05175
P00432	..100024	05203
P00433	..100025	05206
P00434	..100026	05211
P00435	..100027	05222
P00436	..100028	05260
P00437	..100029	05275
P00450	..100030	05317
P00461	..100031	05325
P00462	..100032	05341
P00463	..100033	05347
P00464	..100034	05371
P00465	..100035	05374
P00466	..100036	05377
P00467	..100037	05402
P00470	..100038	05405
P00471	..100039	05410
P00472	..100040	05442
P00473	..100041	05445
P00474	..100042	05454
P00475	..100043	05476
P00476	..100044	05504
P00476	..100045	

04626	02613	02614	03473	03475	03507	03511	03526	03531	03550
02613	03571	03602	03604	03605	03607	03775	04000	04001	04265
04366	04411	04416	04416	04417	04450	04454	04454	04455	04702
05215	07040	07132	07133	07151					
02444									

02513	02814	03373	03375	03507	03511	03526	03531	03550
03571	03602	03604	03605	03607	03775	04000	04001	04265
04411	04516	04527	04527	04550	04454	04454	04455	04702
07040	07132	07133	07151					

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P00477	..100046	05530
P00500	..100047	05533
P00501	..100048	05542
P00606	..100049	06204
P00607	..100050	06227
P00610	..100051	06237
P00142	..101	02115
P00215	..102	02405
P00167	..105	02332
P00212	..108	02365
P00232	..110	02425
P00242	..115	02507
P00277	..122	02563
P00264	..125	02555
P00313	..128	02627
P00327	..129	02655
P00341	..155	02713
P00127	..1653	02066
P00134	..1655	02075
P00155	..170	02261
P00184	..174	02312
P00173	..181	02346
P00355	..228	03062
P01560	..3003	07144
P01567	..3004	07164
P01604	..3005	07224
P01614	..3006	07245
P01624	..3007	07266
P01634	..3008	07307
P01644	..3009	07330
P01654	..3010	07351
P01662	..3011	07372
P01672	..3012	07413
P01702	..3013	07434
P01712	..3014	07455
P01722	..3015	07476
P01732	..3016	07517
P01742	..3017	07540
P01750	..3018	07561
P01756	..3019	07602
P01575	..3022	07203
P01107	..3030	06626
P01127	..3031	06634
P01137	..3035	06663
P01165	..3036	06671
P01200	..3040	06723
P01263	..3045	07004
P01275	..3046	07012
P01301	..3050	07033
P01310	..3051	07053
P01317	..3052	07072
P01250	..33	06741
P01255	..35	06761
P00404	..352	08314

P00547	..4003	06074
P00551	..403	06120
P00550	..404	06136
P00552	..422	06042
P30502	..423	05725
P00514	..437	06016
P00440	..5010	06250
P00645	..5100	06310
P00621	..5101	06274
P00611	..5102	06267
P00652	..5103	06330
P00705	..5104	06350
P00713	..5105	06374
P00743	..5106	06412
P00759	..5107	06435
P00774	..5108	06475
P01026	..5109	06532
P01050	..5110	06545
P001054	..5111	06564
P000113	..806	05123
P00255	..97	02544
P00147	..98	02144
P00152	..99	02125
P01764	..999	07634
P01026	..NSTIFF.	05232

P04674	•Z00001•	JGRPSTOR	07131
pl0214		JJJCCK	04671
		JJJCCK	02300
P30215		JJJCCK	07111
C00002		JJJCCK	02722
C00001		JJJCCK	05742
C00000		JJJCCK	02717
C00014		JJJCCK	02715
pl0216		JJJCCK	06215
C04540		JJJCCK	
C00000		JJJCCK	
C00027		JJJCCK	
C00375		JJJCCK	
pl0217		JJJCCK	02255
C02044		JJJCCK	03235
C00322		JJJCCK	00430
pl0220		JJJCCK	05426
		JJJCCK	06220



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C00020	WRTLEG	05501	05501						
C00021	WHTPT	05322	05322						
C00022	WSPERMT								
P10223	WSUH	04046	04127	04164	10012				
P10224	WT	07043	07045	07154	07155	07420			
C00023	WTANKRS								
C00024	WTARCLS	02611	02611	06111	06150	06150			
C00025	WTARCOL								
C00026	WTARCPX								
C00027	WTARCRS								
C00030	WTARGET								
C00031	WTARJND								
C00044	WTARPOL								
C00032	WTARSEC								
C00033	WTARTEI								
C00034	WTARTYP								
C00035	WTARVAL								
C00036	WTELMCM								
C00037	WTOHRS								
C00040	WTYPE								
C00000	MULT	03135	03135						
C00217	WA								
C00041	WVULN								
C00042	WEAPGP								
P10225	WWMG	04005	04333						
C00407	WWMOS								
C00043	WWMOTPE								
C00000	WYIDENT	02013	02013	02033	02726	02726	02733	02733	02742
C00044	WZONCEPT	05217	05220						
C00045	WZONES								
P10226	X	06027	06034	06036	07153	07621			
C00332	NAD9LI								
C00333	NAD9LR								
C00415	NALINT								
C00405	NAL								
C00024	NALERT	02120	02121						
C00057	NALLOW	04357	04360						
C00301	NALRTDML	04605	04605						
C00303	NALRTDML	03634	03634	04615	05074	05074			
C00154	NAME	03066	03066	03146	03146	03276			
C00335	NAREADEC	05701	05701						
P10227	NASH	04120	04122	04153	04171				
C00262	NASHMS	05644	05644	05673	05673				
C00017	NASMTYPE	05606	05607	05607	06714	06714			
P10230	NRA	04041	04057	04061	04122	04215	04330	04370	04541
P10231	NRL	04044	04063	04070	05270	05270	06565	06621	06621
C00011	NRMORY	02761	05265	05265	05270	05270	06621	06621	06621
P10232	NROM1	04114	04121	04123	04134	04134			
P10233	NROM2	04116	04121	04136	04150	04150			
P10234	NROMH	02752	04102	04104	04110	04110	05726	06035	06046
C00002	NC	03451	03452	03740	03741	03753	03754	03761	04011
C00023	NCLAS	05134	05135						06046
P10235	NCLASSES	06242	06242						06022
		02551							04023

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C00203	NCM	05662	05662			
C00222	COMPLEX	03256	03255	06256		
C00005	NCORR	02755	05447	05456	05441	06333 06367
C00025	MCORTYPE	06367	06260	06325		
C00001	NCPR	02762	06261	06325		
P10236	NCR	03235	03237	03251	06252	
C00242	NOECNYS	05414	05417	05462		
C00411	NDET	05677	05677			
P00053	NDEXAMPLR	02647	03054			
C00006	NOPEN	02756	05535	05536	05544	05540 06436 06470
P10237	NEXTGRP	04470	05011			
X00033	NEXTITEM	04362	05011			
C01130	NEXTZ8	05714	05315			
C00211	NEXTZONE	05314	05314			
P10240	NG	04324	04404	04412	04450	07123 07147 07147
C00014	NGROUP	04662	04663	05746	08165	07123 07147 07147
C00000	NI	03661	03661	04017	04021	05040 05047 05064
C00200	NINCOM	05064	07117			
P10241	NL	07042	05014	05020		
P10242	NLEFT	04361	04363			
P00003	NHVRB8T	00121	04056			
C00176	NHPSITE	03121	03701	03702		
C00107	NMULT	02743	02744	03106	03124	03143 03144 03172
C00177	NOALERT	03203	03203	07770	03124	03143 03144 03172
C00200	NOROMR1	03760	04031	04033	04176	04205 04207 04210
C00201	NOROMR2	05042	05050	05066		
C00202	NOROMR3	05624	05624	05640	05657	
P10243	NOLD	05642	05642	05667	05143	
C00433	NOPERS01	04103	04103	04106		
C00434	NOPERS02	04355	04553	05026		
C00435	NOPERS03					
C00175	NOPERS0N	03117	03117	03645	03750	03752 03760 04037 04037
C00000	NOPRINT	02010	02011	02040		
C00001	NOUT	05615	05615	05625	06777	10054 10054
C00014	NPAYLOAD					
C00410	NPEN	02757	03011	03012	03013	03020 03024 03024 06476 06525
C00007	NRECOVER	05225	05362	05366	05333	06557 06557
C00010	NREF	02760	05362	05366	05333	06557 06557
C00012	NREG	06241	07024	07024		
C00004	NRTPT	02753	02754	05521	05525	06430 06430
P10244	NSITES	03122	03170			
P10245	NSPLIT	04175	04374	04375	04610	04722 04723 05024 05036
P10246	NSUR	04160	10022			
P10247	NSUR1	02767	02772	05231	05237	05304
P10250	NSUR2	02770	02773	05263	05310	
P10251	NTANK	02751	05142	05730	05736	06050
C00021	NTANKAS	05151	05151	05152		
P10252	NTAR	02750	03137	03220	03221	03243 03264

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C0356 NTARG	03141	03142	03216	03216	03217	03260	03261	03262	06261	06262
C0001 NTGTS	05712	05713								
C0353 NTLES	03403									
C0337 NTIRT	04002	04003								
C0005 NTIHAASE	02676	02677	07036	07036						
C0003 NTYBE	02111	02502	02664	02667	02667					
C1110 NTYPS										
C00436 NUMOKL										
C00001 NV	05007									
P00123 NMOHASE										
C00116 NMOGRRP	05631	05650								
C00336 NMOGMS	05566	05567	06654	06654						
C00020 NMOOTYPE	04332	04372	04376							
P10251 NMOX										
C00355 NMPNS										
C00345 NMTYPE										
P10254 NX										
P10255 NXX	04207	04214	04327	04354	04367	04374	04401	04471	04502	04512
P07676 P00000.0	04540	04543	04552	04637	04676	04715	04720	04723	04724	04727
P07723 P00002.0	04731	04734	04736	04746	04763	05001	05020	05025	05027	05051
P07737 P00003.0	04402	04501	04535	04640	04731					
C11517 PA	07704									
C00412 PARRIVE	07726									
C00244 PAYLOAD	02171	02171	02210	02210						
C00315 POES	04055	04055	04251	04251	04444	04776	04776	05614	05614	10001
C00246 PNUC	05560	05560								
C00277 PEN	03474	03474	03510	03527	03530	03557	03557	03570	03570	03603
C00316 PFPF	03606									
C11503 PG	02133	02133	02152	02152						
C00314 PING	03472	03500	03521	03521	03547	03566	03601			
C00317 PKMS										
C00425 PKNAV	04343	04343	04635	04635						
C00311 PLANT	03471	03471	03505	03506	03525	03537	03537	03546	03546	03565
	03565	03603								
C00352 PLACE										
C00353 PLACEN	01775	05655	06733	06733						
P01775 PLASFT										
C00372 PLD										
C00216 POP										
C00173 POSTURE										
C00313 PRART										
C00372 PRMETAR	05707	05707								
C00427 PSASW	03747	04016	04030	04060	04133	04147	04170	04654	04733	
X00004 Q1004100	04534	04762	04153	06172						
X00006 Q1005100	03654	03751	04020	04032	05636					
X00003 Q1010100										
X00005 Q2007101	04066									
X00007 Q000101	00000	01776								
X00001 Q000101	02000									
X00041 Q0010101	02057									



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C11543 QA	02246	02246							
C11533 QG	02227	02227							
X00044 QNSINGL.	07640								
C00020 QADIUS	03317	03317							
C00270 RANGE	03624	03624	03771	05103	05574	05574			
C00271 RANGEDEC	03636	03636							
P10256 RANGECON	02357	02357	03770						
C00272 RANGEDEF	03675	03675							
C00050 R09L	03667	03667	03504	03523	03543	03555	03575	03612	
	03765	03766							
C06337 RECLAT	03027	03027	06515						
C06647 RECLON	03031	03031	06516						
C00000 REDUCE	03442	03443	03465	03501	03502	03522	03541	03554	
	03554	03573	03611	03611	03652	03745	03744		
P00072 REGN	02267	02302	02306						
C00276 REL	03476	03476	03512	03531	03532	03560	03614	03700	
	05576	05576							
P07674 RELCON..	02002	02005	02016	02024	02027	02036	02102	02707	
	02731	02740	02777	03002	03115	03201	03231	03455	
	03757	03764	04014	04026	05010	05140	05716	06221	
	06224	06233	06236	07625	07630	10124			
	03731	03731							
C00207 RESERVE	05356	05357	06550						
C07777 RFLAT	05360	05361	06552						
C10023 RFLOW	02315	02315	07020						
C01212 RGN	05334	05335	06356	06420	06461	06461			
C05207 RLAT	05336	05337	06360						
C05517 RLONG	05774	05774	05777						
P10257 RNGE	02034								
X00015 SETHEAD	02727	02734							
X00022 SETWRITE	07626								
X00034 SHUFFL1	02705								
X00021 SHUFFLE	03006	03006	03041	05177	05177	05611	05611		
C00151 SIDE									
C00155 SITENO	02045								
X00016 SKIPFILE	03673								
C00275 SPDASH	03671								
C00274 SPDLO	03630	03630	05070	05602	05602				
C00273 SPDEF	02064	02073	02113	02403	02413	02442	02542	02553	02625
C00157 SQHNO	02653	03060	04314	04244	05723	06014	06072	06116	06134
X00045 STM.	06265	06274	06306	06344	06372	06410	06451	06473	06506
	06530	06543	06562	06600	06624	06661	06721	06737	06757
	07002	07010	07031	07070	07142	07162	07222	07243	07284
	07305	07324	07347	07411	07432	07453	07515	07534	07557
	07600	07632							
X00010 STORAGE	02003								
P10260 SUMOHL	04507	04523	04533	04743	04757	04760	04761		
P10261 SUMVAL	04054	04104	06107	06114					
P10262 SUMVALX	04114	06143							
C00244 T1	03366	03366							
C00247 T2	03362	03362							
C00250 T3	03357	03360							
C00406 TAI									

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CO0000	TANK	05057	05057	05061	05071	05071	05073	05075	05075	05077
CO0225	TARDEFHI	05077	05104	05104						
CO0226	TARDEFLO	03401	03401							
CO0172	TASK									
CO0000	TD	03155	03155	03304	03320	03320	03322	03335	03342	03342
		03314	03314	03316	03363	03363	03365	03367	03367	03371
		03344	03344	03360	03363	03363	03365	03367	03367	03371
		03371	03406	03406	03410	03412	03412			
		02103	04222	04234						
X00020	TERMTAPE									
CO00431	TGISTAT	02067	02074	02116	02156	02175	02214	02252	02272	02316
X00002	TWEND.	02335	02347	02370	02410	02420	02537	02513	02533	02546
		02558	02601	02641	02721	03073	04317	05254	05731	06017
		00051	04077	04121	04141	04277	04321	04363	04376	04424
		04437	04464	04477	04521	04553	04566	04627	04656	04664
		04714	04724	04753	04773	04786	04786	04786	04786	04786
		07217	07240	07261	07302	07344	07365	07427	07450	07471
		07512	07533	07554	07575	07575				
CO0342	TIME									
PI0263	TIMEA	04706	04711							
CO0341	TIMEB									
CO0347	TIMESTR	04503	04504	04603	04616	04617	04671	04704	04705	04740
		07610	07610							
PI0294	ILONG	04422	04436	04437						
CO0225	TWAS4	05706	05706							
CO0304	TWDEL									
CO0430	TPASW									
CO0310	TREIARG	05704	05704							
PO2502	TS00014	02473								
PO2705	TS00016	02670								
PO0311	TS00020	04222								
PO4595	TS00021	04513								
PO4761	TS00022	04747								
PO0005	TS00023	04747								
PO4111	TS00024	04061								
PO4150	TS00025	04126								
PO4202	TS00026	04166								
PO4260	TS00027	04247								
PO4325	TS00030	04304								
PO4367	TS00031	04341								
PO4430	TS00032	04403								
PO4470	TS00033	04444								
PO4525	TS00034	04504								
PO4557	TS00035	04541								
PO4621	TS00036	04573								
PO4654	TS00040	04640								
PO4714	TS00042	04675								
PO4777	TS00043	04731								
PO7024	TS00046	07016								
PO7117	TS00047	07043								
PO7063	TS00050	07056								
PO7107	TS00051	07101								
PO7141	TS00053	07124								
PO7421	TS00054	07154								

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P07174	TS00055.	07167	02142	02161	02200	02217	02236	02257	02330	02373	02423	02526
P07215	TS00056.	07207	02711	04517	04522	04742	04751	04753	05316	05316	05340	05340
P07234	TS00057.	07230	04515	04517	04522	04742	04751	04753	05404	05407	05441	05441
P07257	TS00060.	07251	05076									
P07309	TS00061.	07272										
P07321	TS00062.	07313										
P07342	TS00063.	07334										
P07361	TS00064.	07355										
P07404	TS00065.	07376										
P07425	TS00066.	07417										
P07446	TS00067.	07440										
P07447	TS00070.	07461										
P07510	TS00071.	07502										
P07531	TS00072.	07523										
P07552	TS00073.	07544										
P07573	TS00074.	07565										
P07614	TS00075.	07606										
X00042	TSM.	02123	02142	02161	02200	02217	02236	02257	02330	02373	02423	02526
P10265	TT	02561	02711	04517	04522	04742	04751	04753	05316	05316	05340	05340
C00305	TT05	04506	04515	04517	04522	04742	04751	04753	05404	05407	05441	05441
C00307	TVUL	05076										
C00000	TW00											
C00150	TYPE	03377	03377	03621	03621	05210	05210	05253	05316	05316	05340	05340
		05373	05373	05376	05376	05401	05401	05404	05404	05407	05441	05441
		05441	05444	05444	05527	05527	05532	05532				
C00443	TYPE1	02055	02477	02477								
C00444	TYPE2											
C10515	TYPENAME											
C00376	TYPE1	02130	02135	02147	02154	02166	02173	02205	02212	02224	02231	02243
P07706	UP00000.	02250	02264	02270	02276	02321	02430	02435	02447	02454	02465	02522
		02564	02573	02666	03520	05216	06040	06110	06125	06147	06164	06245
		06303	06324	06340	06366	06402	06427	06443	06447	06503	06524	06540
		06556	06572	06620	06643	06650	06703	06710	06744	06751	06764	06771
		07015	07023	07055	07042	07100	07106	07122	07166	07173	07206	07214
		07227	07235	07250	07256	07271	07277	07312	07320	07333	07341	07354
		07362	07375	07403	07416	07424	07437	07445	07460	07466	07501	07507
		07522	07530	07543	07551	07564	07572	07605	07613	07702	07707	07710
		07711	07721	07722	07543	07564	07572	07605	07613	07702	07707	07710
P07730	UP00002.	04221	04310	05031	05745	07047	07160	07724	07731	07732	07733	07735
		07736										
P07750	UP00003.	02301	04511	04745	06637	06953	06574	06713	06730	06776	07015	07112
		07744	07751	07752	07753	07764	07765	07775	07776			
P07767	UP00006.	02745	03145	07665	07771	07772	07773	07775	07776			
P10000	UP00010.	04047	04130	04144	04165	10002	10003	10004	10007			
P10011	UP00011.	04047	04130	04144	04165	10002	10003	10004	10007			
P10021	UP00012.	04161	10022	10023	10024	10026	10027	10027	10016	10017		
P10031	UP00023.	07673	10033	10034	10035	10037	10040	10040				
P10042	UP00024.	07672	10044	10045	10046	10050	10051	10051				
P10053	UP00025.	05614	07666	10055	10056	10057	10061	10062				
P10064	UP00026.	07667	10066	10067	10068	10070	10072	10072				
P10074	UP00027.	07670	10076	10077	10078	10080	10102	10103				
P10105	UP00030.	05771	10106	10107	10110	10112	10113					

5.4TS PLANSET

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ED 0

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UP00031.

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55

P05765	*S00045.	06772	07025
P07017	*S00046.	07025	07120
P07044	*S00047.	07120	07064
P07057	*S00040.	07064	07110
P07102	*S00051.	07110	
P07076	*S00052.	07113	
P07130	*S00053.	07140	
P07155	*S00054.	07622	
P07170	*S00055.	07175	
P07210	*S00056.	07216	
P07231	*S00057.	07237	
P07252	*S00060.	07260	
P07273	*S00061.	07301	
P07314	*S00062.	07322	
P07335	*S00063.	07343	
P07356	*S00064.	07364	
P07377	*S00065.	07405	
P07420	*S00066.	07426	
P07441	*S00067.	07447	
P07462	*S00070.	07470	
P07583	*S00071.	07511	
P07524	*S00072.	07532	
P07545	*S00073.	07553	
P07566	*S00074.	07574	
P07607	*S00075.	07615	
C00000	4T		
C01236	WTP		
		03625	03625
		03637	03670
		03701	05772
		05654	
P10248	XDFG	05277	
X00036	XMAX0F	05224	
C00257	YIELN	05555	
P10267	YLD	04052	
		04467	
C00202	ZONE	05311	
C00620	ZONEF	05312	
C01604	ZONEC	05313	
	0220A SYMBOLS	05471	
		06361	

03627	03631	03633	03635	03637
03671	03672	03674	03675	03676
05773				03677
05327	05306	05004	05627	05646
04062	04073	04135	04151	04152
04732	04112	04172		04173
05470				

1173

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```

SUBROUTINE ARQVFLW
  CSUBR ARQVFLW 10MAR71 *****
  CUSE DPQOL 18JAN71 *****
  C
  C THIS BLOCK COMBINES THOSE KNOWN IN OTHER PROGRAMS AS /ROUND/,
  C /CHECK/, /CORR/, /DEPN/, /KORTYP/, /LEG/, /NAVALK/, /POINT/,
  C /RADATA/, /RECOV/, /REF/, AND /TYPENAME/.
  C IT IS REUSED DURING TGT SORT AS ITEM,
  C AND DURING GRPSORT AS ITANK AND JTANK
  C
  COMMON /DPQOL/ IB(200), LINKB(200), ZONEB(200), NEXTZ(200),
  * ICHKFLG(20), ICHKNUM(20), IC(30), LINKC(30), ZONEC(30), ITY(30),
  * ID(50), LINKD(50), KORST(5), MILOAT(5), DEFR(5), ATTRS(5),
  * ATTRC(5), IL(200), LINKL(200), ATRL(200), TMAS(10,10),
  * DBLASH(10,10), NTIMES(10), TIMESTRT(200), MALLOW(200),
  * RLAT(200), ALONG(200), RLAT(200), RLONG(200), LINKR(200),
  * RECLAT(200), RECLON(200), IRECPCTY(200), INHREC(200),
  * RFLAT(20), RFLLONG(20), CUMNO(15), BTYPES(15), INDCLAS(15),
  * INHNEG(250), TYPENAME(250), NTYPES, CHK(250),
  * PG(12), PA(12), QG(6), QA(6),
  * ITEMPI(500), ITANK(12,200), JTANK(12,200)
  TYPE INTEGER ZONEB, ZONEC
  TYPE INTEGER TYPENAME, CHK
  TYPE INTEGER CUMNO
  EQUIVALENCE (I4, ITEMPI, ITANK)
  EQUIVALENCE (ITEMPI(240), JTANK)
  CEV DPQOL *****
  IDMP=0
  DO 100 I=1,20
    IF (ICHECKFLG(I).EQ.0) 100,200
    PRINT 300, I, CHK:SUM(I), I, ICHKFLG(I)
    300 FORMAT(19H0AKRAY OVERFLOW * * I,R,2X,A,R)
    IDMP=1
  100 CONTINUE
    IF (IDMP) 500,400,500
    500 CALL ARQRT
    400 RETURN
  END

```

5-4TS AROVFLW

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2

IDENT AROVFLW

00050  
00014  
11610

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES  
EXTERNAL SYMBOLS

AROVLW

OP00L

THEM0.  
G800ICT.  
AH00T  
STM.  
QNSIUGL.

X00003	480AT	00047			
P00014	ARQVRFLLW	00014			
C02715	ATRL				
C02070	ATTAC				
C02063	ATTAS				
P00054	HEGIN.	00054			
C04367	PLAT				
C04677	HLONG				
C10066	HTYFFS				
C11111	CHK				
P00053	CVRTI.	00035	00036		
P00003	CRFMT.	00041			
C10047	CUMNO				
C03371	ORLASW				
C02056	DEFR				
P00001	NICT.	00016	00031	00040	00050
P00055	ENDING.	00017	00051		
P00000	EXIT.	00055			
P00003	FORMAT.				
P00041	GG00000.	00027			
C02051	MILOAT				
P00056	I	00022	00023	00033	00043
C00000	IB				
C01510	IC				
C01440	ICMFLG	00024	00024	00036	
C01464	ICMKNUM	00034	00034		
C01700	ID				
P00057	IDMP	00021	00042	00045	
C02075	IL				
C10124	INDHEG				
C10105	INDCLAS				
C07467	INDREC				
P00054	INITIAL.	00017			
C07157	IPECPTY				
C00000	ITANK				
C00000	ITEMP				
C01642	ITY				
P00043	.100	00026			
P00027	.200	00025			
P00047	.500	00046			
P00051	.600	00045			
P00003	.300	00032			
C04540	JTANK				
C02044	KORSTY				
C03310	LINKR				
C01546	LINKC				
C01762	LINKO				
C02405	LINKL				
C06027	LINKR				
C04057	NALLOW				
C01130	NEXTZR				
C03535	NTIMES				
C11110	NTYPS				
C11517	PA				



5.4TS ARDVRFL

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C11503	PG		
X00002	Q800ICT.	00000	00015
C11543	QA		
C11533	Q6		
X00005	QNSINGL.	00052	
C06337	RECLAT		
C06647	RECLON		
C07777	RFLAT		
C10023	RFLONG		
C05207	HLAT		
C05517	RLONG		
X00004	STH.	00030	
X00001	THEND.	00037	
C03547	TIMESTRT		
C03225	TRASH		
C10516	TYPENAME		
P00023	WS00001.	00044	
C00620	ZONER		
C01604	ZONEC		
	00111 SYMBOLS		

1178

[illegible]

12/10/71

```

DO 86 KI=1,MO
  IF (DESIG.EQ.IPDES(KI)) 87,86
86 CONTINUE
  IF NO MATCH, RESET NT TO SEARCH WHOLE TASK ARRAY NEXT TIME
860 HT=MTASK
  GO TO 88
87 IFIRST=II
  MD=KI-1
88 CONTINUE
  KKK=K+N-1
  IF (IFIRST) 91,89
  R9 PRINT 90, (II, ICPLX(4,II), ICPLX(3,II), II=K, KKK)
  90 FORMAT(28H NO MATCH FOR TASK AND DESIG/5X, 1H1, 5X, 4HTASK, 5X, 5HDESIG
    1/(16,6X,2A8))
  GO TO 948
91 CONTINUE
  KLEAD=K-IFIRST-1
  ITR(1,II)=ICPLX(1,KLEAD)
  ITR(2,II)=ICPLX(2,KLEAD)
  ITR(3,II)=ICPLX(3,KLEAD)
  ITR(4,II)=ICPLX(4,KLEAD)
  ITR(5,II)=ICPLX(5,KLEAD)
  ITR(6,II)=ICPLX(6,KLEAD)
  TAR(8,II)=CPLX(8,KLEAD)
  TAR(9,II)=CPLX(9,KLEAD)
  ITR(23,II)=ICPLX(23,KLEAD)
  DO 95 JJJ=1,29
    ITEMPC=ICPLX(JJJ,K)
    ICPLX(JJJ,K)=ICPLX(JJJ,KLEAD)
  95 ICPLX(JJJ,KLEAD)=ITEMPC
  948 ITR(22,II)=7*HCOMPLEX
  DO 10 J=1,N
    LK=1
    IF (ITR(10,II).GE.CPLX(10,L)) 75,74
  74 TAR(10,II)=CPLX(10,L)
  75 CONTINUE
    FV(1)=CPLX(17,L)
    FV(2)=CPLX(18,L)
    FV(3)=1.-FV(1)-FV(2)
    VT=CPLX(11,L)
    NT=CPLX(16,L)
    T(1)=CPLX(19,L)
    T(2)=CPLX(20,L)
    T(3)=CPLX(21,L)
    VTOT=VTOT+VT
    IF (ITR(25,II).GE.ICPLX(25,L)) 3,2
  2 ITR(25,II)=ICPLX(25,L)
  3 CONTINUE
    NTINT=NTINT+ICP.X(26,L)
  7 DO 8 JX=27,29
    8 TAR(JX,II)=TAR(JX,II)+CPLX(JX,L)*VT
    IF ((ICPLX(23,L)-4) * (ICPLX(23,L)-5)) 6,5,6
  5 ITR(22,II)=HCOMPLEXD
  6 CONTINUE
  DO 10 II=1,NT

```

```

KK=KK+1
V(KK)=FV(I1)*VT
10 TAU(KK)=T(I1)
ITAR(26,I)=INTINT
TAQ(I1,I)=VTOT
XVI=1./VTOT
DO 76 JX=27,29
76 TAR(JX,I)=TAR(JX,I)*X/T
11 DO 12 J=1,3
12 TROX(J)=VBOX(J)=0.
18=1
CALL ORDER(TAU,INDEXT,KK)
CALL REORDER(INDEXT,KK,2,TAU,V,0,0,0,0,0)
KK=KK
DO 15 L=2,KK
15 IF(TAU(L).EQ.TAU(L-1))14,15
14 KK=KN-1
V(L)=V(L)+V(L-1)
V(L-1)=TAU(L-1)=0.
15 CONTINUE
13 LI=1
DO 17 L=1,KK
17 IF(TAU(L).EQ.0.)17,16
16 TAU(LI)=TAU(L)
V(LI)=V(L)
LI=LI+1
17 CONTINUE
KK=KN
IF(KK.LE.3)30,18
18 I=IR+1
DO 20 L=1,KK
20 IF(V(IR).LT.(.35*VTOT))19,25
19 TAU(IR)=TAU(IR)+V(IR)+TAU(L)*V(L)
V(IR)=V(IR)+V(L)
TAU(IR)=TAU(IR)/V(IR)
KN=KN-1
TAU(L)=V(L)=0.
IF(KK.LE.3)13,20
20 CONTINUE
25 IR=IR+1
GO TO 13
30 CONTINUE
ITAR(16,I)=KK
TAR(17,I)=V(I)/VTOT
TAR(19,I)=V(2)/VTOT
TAR(19,I)=TAU(I)
TAR(20,I)=TAU(2)
TAR(21,I)=TAU(3)
40 DO 50 J=1,N
L=K-1+J
VT=CPLX(I1,L)
NH=ICPLX(12,L)
H(1)=CPLX(I3,L)
H(2)=CPLX(I4,L)
FVM(1)=CPLX(15,L)
FVM(2)=1.-FVM(1)

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FTNS.5

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00 50 JN=1,NH
IF (FVH(JM).EQ.0.) 50,45
JN=JJ+1
45 V(JJ)=FVH(JM)*VT
NC(JJ)=M(JM)
50 CONTINUE
HSOFT=HWARD=VSOF=VWARD=0.
JN=JJ
00 40 JJ=1,JN
IF (HC(JJ).LT.1.5) 55,52
52 HSOFT=HSOFT+HC(JJ)*V(JJ)
VSOF=VSOF+V(JJ)
GO TO 40
55 HWARD=HWARD+HC(JJ)*V(JJ)
VWARD=VWARD+V(JJ)
60 CONTINUE
IF (VWARD.EQ.0.) 63,61
61 TAR(13,1)=HWARD/VWARD
NH=1
TAR(15,1)=VWARD/VTOT
IF (VSOF.EQ.0.) 64,62
62 TAR(14,1)=HSOF/VSOF
NH=2
GO TO 64
63 TAR(13,1)=HSOF/VSOF
TAR(15,1)=1.
NH=1
64 ITAR(12,1)=NH
RETURN
END

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5.4TS CALCOMP

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IDENT CALCOMP

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

01253  
00034

CALCOMP

TAU

00436

12

34436

DIRECTRY

11654

PRIOR

00223

EXTERNAL SYMBOLS

THENC.

ORQUICT.

ORDEM

REORDER

STM.

ONSINGL.



## 5.4TS CALCOMP

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C03264	INDEXT	00440	00445				
P01122	INITIAL	00037					
C00060	IPDES	00146	00147				
C00000	IPYASK	00126	00127				
C00222	ISURT	00100	00100				
P01216	IT	00366	00370				
C00000	ITAR	00041	00041	00220	00227	00230	00231
		00256	00323	00324	00332	00332	00333
		00734	00735				00411
		00245	00250				00234
							00411
							00237
							00255
							00564
P01217	ITEMP						
P00400	.10						
P00054	.11						
P00425	.12						
P00431	.13						
P00472	.14						
P00463	.15						
P00471	.16						
P00504	.17						
P00512	.18						
P00517	.19						
P00531	.20						
P00327	.21						
P00553	.22						
P00557	.23						
P00333	.24						
P00562	.25						
P00601	.26						
P00434	.27						
P00362	.28						
P00645	.29						
P00666	.30						
P00674	.31						
P00365	.32						
P00702	.33						
P00706	.34						
P00717	.35						
P00724	.36						
P00733	.37						
P00337	.38						
P00273	.39						
P00277	.40						
P00421	.41						
P00344	.42						
P00102	.43						
P00107	.44						
P00113	.45						
P00121	.46						
P00131	.47						
P00140	.48						
P00143	.49						
P00136	.50						
P00156	.51						
P00151	.52						
P00161	.53						



## 5.415 COLCOMP

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P011A4 .AA	00135	00155	00160						
P0117A .89	00173								
P00220 .91	00217								
P00254 .94A									
P00240 .95									
P0117A .ERASEK.	00354	00354	00357	00534	00537				
P00030 .100000	00254								
P00033 .100001	00362								
P00003 .90	00177								
P01200 J	00051	00122	00120	00136	00142	00257	00264	00404	00426 00430
P01221 JH	00602	00607	00646	00765					
P01222 JJ	00627	00631							
P01223 JJJ	00046	00634	00637	00642	00654	00656	00660		
P01224 JK	00240	01014							
P01225 JX	00655	00654							
P00003 K	00340	00416	01030						
P01226 KI	00064	00170	00200	00262	00405	01102			
P01227 K2	00144	00146	00151						
P01230 KK	00070	00075	00076	01113					
	00043	00372	00373	00376	00401	00445	00453	00456	00476 00514
P01231 KK1	00514	00555	00542						
P01232 KLEAN	00172	00213							
P01233 KM	00222	01071	00464	00513	00544	00545	00550		
P01234 L	00453	00463							
P01235 LI	00264	00454	00460	00474	00500	00521	00534	00553	01045
P01236 LOKK	00473	00505	00510	00511					
P01237 MASK1	00057	00104							
P01240 40	00060	00111	00115						
P00000 4LICOMP	00064	00141	00152	00163					
P00220 4PTASK	00063	00063	00140	00140					
P01231 4T	00061	00061	00156	00156					
P01232 4H	00062	00117	00133	00137	00142	00157			
P01243 4T	00042	00164	00171	00406	00650				
P01244 4T	00615	00627	00712	00723	00732	00733			
P01245 4TINT	00312	00346							
X00003 4ORDER	00045	00333	00336	00410					
P00740 P00000.0	00434								
P00772 P00001.0	00762								
P01006 P00003.0	00775								
P00022 P00004.0	01011								
P01034 P00006.0	01025								
P01134 P000002.	01042								
P01146 P000003.	01133								
X00002 480000CT.	01137								
X00004 480000CT.	00000								
P00754 480000CT.	00740								
X00004 480000CT.	01042								
X00005 480000CT.	00443								
C00021 480000CT.	00175								
C00000 480000CT.	00314	00316	00314	00314	00320	00320	00400	00400	
	00050	00054	00055	00055	00235	00236	00260	00267	00346
	00347	00413	00413	00413	00421	00421	00423	00423	00571

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5.4TS CALCOMP

P00A33 WSD0020.  
P00662 WSD0021.  
P01252 XVT  
00310 SY#HOLS

00645  
00702  
00415

00422

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FUNCTION DRLCALC (TIME, IDRL)
  DRLCALC 150FC70 *****
C  COMPUTES TIME DEPENDENT DRL FROM TABLES IN /NAVALX/
C
CUSE  DPOOL 10JAN71 *****
C
C  THIS BLOCK CUMMINGS THOSE KNOWN IN OTHER PROGRAMS AS /RUNING/,
C  /CHECK/, /CORR/, /DEPN/, /KORTYP/, /LEG/, /NAVALX/, /POT/,
C  /RADATA/, /RECOV/, /REF/, AND /TYPENAME/.
C  IT IS REUSED DURING T6TSORT AS ITMP,
C  AND DURING GRPSORT AS JTANK AND JTANK
C
COMMON /DPOOL/ IR(200), LINK8(200), ZONE8(200), NEXT8(200),
* ICHRG(20), ICHRN(20), IC(30), LINKC(30), ZONEC(30), ITY(30),
* IR(50), LINKU(50), KORSTY(5), HILOAT(5), DEFN(5), ATTN(5),
* ATTPC(5), TL(200), LTANK(200), AIRL(200), TWAS(10,10),
* DFLASH(10,10), NTIMES(10), TIMESTNT(200), NALLOW(200),
* RLAT(200), FLONG(200), RLAT(200), RLONG(200), LINKR(200),
* RECLAT(200), RECLON(200), RECPCY(200), INDEEC(200),
* RFLAT(200), RFLONG(200), CUMNO(15), STYPES(15), INDCLAS(15),
* INOREG(250), TYPENAME(250), NTYPES, CHK(250),
* PG(12), PA(12), QG(8), QA(8),
* ITMP(5000), JTANK(12,200), JTANK(12,200)
TYPE INTEGER ZONE8, ZONEC
TYPE INTEGER TYPENAME, CHK
TYPE INTEGER CUMNO
EQUIVALENCE (ITMP, JTANK)
EQUIVALENCE (ITMP(2401), JTANK)
DPOOL *****
C
IF (IDRL) 50, 50, 10
10 IDRL = ITMP
TIME = ITIME
NT = NTIMES(IDRL)
PLOW = 0.0
TLOW = 0.0
DO 30 I = 1, NT
  IF (TIME.GT. TWAS(I, IDRL)) 20, 40
  20 PLOW = DFLASH(I, IDRL)
  TLOW = TWAS(I, IDRL)
  30 CONTINUE
  DRLCALC = PLOW
  RETURN
  40 PHIGH = DFLASH(I, IDRL)
  THIGH = TWAS(I, IDRL)
  DRLCALC = PLOW + ((PHIGH - PLOW) / (THIGH - TLOW)) * (TIME - TLOW)
  50 RETURN
END

```

5.4TS DBLCALC

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IDENT DBLCALC

PROGRAM LENGTH 00162  
ENTRY POINTS DBLCALC 00003  
BLOCK NAMES  
EXTERNAL SYMBOLS OP00L 11610  
GR001CT.

C02715	ATML						
C02070	ATTMC						
C02063	ATTMS						
P00106	REGIN.	00130	00137	00143			
C04367	HLAT						
C04677	ALONG						
C10066	HTYPES						
C11111	CHK						
C11047	CUMNO						
C02371	NALASM						
P00003	NALCALC						
C02056	DEFER	00033	00033	00046	00046		
P00001	PICT.						
P00131	EXPING.						
P00000	EXIT.	00005	00111	00112	00106	00107	00110
P00007	SP00001.	00004	00044	00041			
P00011	SP00002.	00135					
P00014	SP00003.	00124	00125				
P00144	GETPL.	00126	00127				
P00136	GETPU.	00120	00121				
C02051	HL00AT	00113	00122				
P00152	I	00116	00142				
C00000	CH	00023	00037	00071			
C01510	IC						
C01540	ICHKFLG						
C01464	ICHKNUM						
C01700	ID						
P00153	IOSL	00012	00015	00100			
P00003	IT00L	00007	00011				
C02075	IL						
P00053	IN00002.	00027	00032	00045	00064	00074	00104
C10124	IN00EG						
C10105	IN00CLAS						
C07467	IN00REC						
P00106	INITIAL.	00006					
C07157	INFCDCIV						
C00000	ITANK						
C00000	ITEMP						
C01642	ITY						
P00011	.10						
P00032	.20						
P00037	.30						
P00045	.40	00030	00031				
P00061	.50	00010	00010				
P00147	ENASFR.	00053	00054	00055	00055	00056	00057
C04540	JTANK						
C02044	K00STY						
C00310	LINKA						
C01546	LINKC						
C01742	LINKD						
C02005	LINKL						
C00027	LINKR						
C04057	NALLOW						
C01130	NEXTZ						

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D3LCALC

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P0154 NT 00020 00041  
 C0355 TIMES 00016 00017  
 C1110 TYPES 00006  
 P0006 00000000  
 C1157 24 00117  
 P0122 PF00002 00123  
 P0130 PF00003 00123  
 C11503 PG 00047 00052  
 P0155 HIGH 00021 00034  
 P0156 LOW 00000 00004  
 X0001 0000101  
 C11543 DA 00043 00052 00060  
 C11533 TG  
 C06337 RECLAT  
 C06647 RECLON  
 C07777 NPLAT  
 C10023 RPLONG  
 C05207 PLAT  
 C05517 RLONG  
 P00157 THIGH 00051 00053  
 P01160 TIME 00015 00026 00056  
 C03547 TIMESTRT  
 P01161 TLOW 00022 00036 00057  
 C03225 TMASK 00027 00030 00035 00050 00050  
 P00041 TS00001 00025  
 P00033 TIME 00014  
 C13516 TYPENAME  
 P00070 UP00000 00024 00040 00064  
 P01077 UP00001 00013 00100 00101 00102 00075 00075  
 P00062 VALUE 00043 00060 00134  
 P00024 #S00001 00042 00062  
 C00620 ZONEA  
 C01604 ZONEC  
 00127 SYM90LS

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```

SUBROUTINE GHPSORT
  CSUBR      18AUG71
  CUSE      11NOV70
  COMMON/ITP/ITP
  CEND
  CUSE      11NOV70
  COMMON/TWORD/TWORD,ITWORD
  EQUIVALENCE(ITWORD,ITWORD)
  CEND
  CUSE      11NOV70
  COMMON/MTIDENT/MTIDENT
  CEND
  CUSE      11NOV70
  COMMON/WT/WT,IGATE,IDENTNO,LSIDE,NRGT,NCORR,NOPEN,NRECOVER,
  *NREF,NPNDRY,NREF,NTYPE,MGROUP,NTOTRASE,NPAYLOAD,NASHTYPE,
  2NMNDTYPE,NTANKHAS,NCOMPLEX,NCLASS,NALERT,NCORTYPE,
  *INTAPE(22)
  EQUIVALENCE(ITTAPE,WT)
  CEND
  CUSE      25JAN71
  COMMON/TAPES/LTWIN,LTIN,LTGT,LTGRP,LTDM,LSRTA,LSRTH
  TAPES
  DP00L      18JAN71
  C
  C THIS BLOCK COMBINES THOSE KNOWN IN OTHER PROGRAMS AS /ROUND/,
  C /CHECK/,/CORR/,/DEPEN/,/KORTYP/,/LEG/,/NAVALX/,/POINT/,
  C /RADATA/,/RECOV/,/REF/,AND /TYPENAME/,
  C IT IS REUSED DURING TGISORT AS ITEM,
  C AND DURING GHPSORT AS ITANK AND JTANK
  C
  COMMON /DP00L/ I4(200),LINKH(200),ZONER(200),NEXTZ(200),
  * ICHKFLG(20),ICRNUM(20),IC(30),LINKC(30),ZONEC(30),ITY(30),
  * ID(50),LINKD(50),KORTY(5),MLOAT(5),DEFR(5),ATTRS(5),
  * ATTPC(5),ILT(200),LINKL(500),AHL(200),THAS*(10,10),
  * DRLAS*(10,10),NTIMFS(10),TIMESTRT(200),NALLON(200),
  * PLAT(200),HLONG(200),PLAT(200),HLONG(200),LINKP(200),
  * PFCLAT(200),RECLON(200),TRECPTY(200),INDKEC(200),
  * WFLAT(200),WFLONG(200),CUMNO(15),BTYPES(15),INDCLAS(15),
  * INDHEG(250),TYPENAME(250),NTYPS,CHK(250),
  * PG(12),PA(12),QG(6),QA(8),
  * ITEM(5000),ITANK(12,200),JTANK(12,200)
  TYPE INTEGER ZONER,ZONEC
  TYPE INTEGER TYPENAME,CHK
  TYPE INTEGER CUMNO
  EQUIVALENCE (I4,ITEMP,ITANK)
  EQUIVALENCE (ITEMP(2401),JTANK)
  DP00L
  GROUP      15DEC70
  COMMON /GROUP/ GRP(14,210),IGRP(14,210),INDGRP(210),MNDGRP,
  * JTGT(2500)
  EQUIVALENCE (GRP,IGRP,JTGT)
  C
  C GRP+IGRP(14*MGROUP+10), AND INDGRP(MGROUP+10) WHERE
  C MGROUP = MAX NUMBER OF WEAPON GROUPS
  C JTGT IS USED ONLY IN TGISORT, AND IS JTGT(MTARVAL)
  CEND
  CUSE      12MAY71
  PRCNTL

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COMMON /PRCNTL/ JJJTSTS, JJJGP, JJJCPX
CE-IN PRCNTL *****
CUSE 12 25JUN71 *****
COMMON /12/ TANK(20,250), ITANK(29,250), CPLX(30,250), JCPLX(30,250),
1 GRPCOMP(5,2500), IGRPCOMP(5,2500)
EQUIVALENCE (ITANK, IGRPCOMP, IGRPCOMP1,
* (CPLX, JCPLX)
COMMON /DIRECTRY/ MLTCOMP (8,600), FMLTCOMP (8,600), LOCK (30),
* EQUIVALENCE (MLTCOMP, FMLTCOMP)
TANK(29, MLTGT), MLTGT = MAX NUM TARGET TABLE ENTRIES
CPLX(29, MCOMP), MCOMP = SIZE OF COMPLEX TGT ARRAY
MLTCOMP(8, MMLT), MMLT = SIZE OF MULTIPLE TGT DATA ARRAY
GRPCOMP(5, MGRP), MGRP = TABLE FOR DATA ON EA WEAPON IN GROUP
TANK(12, MTKRL), MTKRL = TABLE FOR TANKER DATA
/DIRECTRY/ IS SO NAMED TO REUSE BLOCK USED BY PLANDATA
FILLR DEFINED ONLY TO MAKE LENGTH SAME AS ORIGINAL COMMON
12 *****
DATA (MTANK = 200)
DATA (MJTANK = 200)
DATA (MPOS = 5)
DATA (NT = 1)
DATA (NMT = 1)
ITP=LTGRP
MYIDENT=MSWITCH
CALL SETHEAD
COMPUTE INDICES FOR STORING GROUPS
INDGRP(1)=1
DO 200 I=2, NGRP-UP
200 INDGRP(I)=INDGRP(I-1)+IGRP(12,I-1)
C READ GROUP COMPOSITION DATA. SORT INTERNALLY
ITBELTGRV
250 CALL WORDORD
IF (ITWORD.EQ.4) MENDGROUP(270,255)
255 IF (ITWORD.GT.0) 260,256
C HERE FOR TANKERS
256 IF (ITWORD.EQ.-4) 100,101
100 CALL RDARRAY(JTANK(NMT),12)
NMT=NMT+12
IF (NMT/12.GT. MJTANK) 105,250
101 CALL RDARRAY(ITANK(NT),12)
NT=NT+12
IF (NT/12.GT. MJTANK) 105,250
105 PRINT 106
106 FORMAT(30H ITANK OR JTANK OVERFLOW-ABORT )
260 M=INDGRP(ITWORD)
INDGRP(ITWORD)=K+1
CALL RDARRAY(IHRCOMP(1,K),MPOS)
GO TO 250
C SORT FINISHED. WRITE OUT GROUPS
270 CALL TERMTAPE
ITP=LTWIN
*C=1
DO 1420 I=1, NGROUP

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L = (I - 1) * NWSGRP + 1
CALL WARRAY(GRP(I), NWSGRP)
NWS = IGRP(12,I)
CALL WARRAY(IGRPCOMP(MC),M)
WCMC = M
1420 CONTINUE
C PRINT GROUP COMPOSITION DATA
IF (JJGRP.EQ.6*NGROUPS) 510,511
510 CONTINUE
L=1
DO 1430 I=1,NGROUP
  NG=IGRP(12,I)
  WEL=NG-1
  PRINT 1421,I
1421 FORMAT(///6M GROUP=(I9//,10M INDEXNO,13M LAT,
  10M LONG,10M PAYLOAD,18M ISTART,10M PERBASE /)
  POINT 1422, ((IGRPCOMP(J,K)),J=1,NWS),K=L,M)
  L=L+NG
1430 CONTINUE
1422 FORMAT(110,2(2X,F9.4),110,2X,016)
511 CONTINUE
C WRITE OUT TANKER DATA
WNT=1
CALL WARRAY(ITANK,M)
WNUMT=1
CALL WARRAY(JTANK,M)
CALL TFRMTAPE
RETURN
END

```



X00006 ARORT	00162								
C02715 ATML									
C02070 ATTIC									
C02083 ATTMS									
P00411 BEGIN.	00412								
C04307 HLAT									
C04677 HLOG									
C13044 HYPES									
C11111 CMK									
P00341 CNVRT1.	00261	00302							
P00421 CNVRT.	00104	00106							
C14122 CPLA									
P00010 CPMAT.	00162	00264	00323						
C10047 CUMNO									
C03371 DMLASW									
C02056 DEFR									
P00001 DICT.	00066	00075	00116	00132	00145	00156	00161	00175	00201
	00230	00257	00263	00266	00314	00326	00333		00220
	00067	00337	00411	00412					
P00413 ENDING.	00414								
P00000 EXIT.									
C11136 FILL									
C00000 FMTCOMP									
P00010 FORMAT.	00072	00117	00240						
P00162 GG0000.	00154								
P00264 GG00001.	00255								
P00315 GG00002.	00264								
C00000 GRP	00216	00221							
C00000 GRPCOMP									
P00064 GRPSORT	00064								
C02051 HIL0AT									
P00422 I	00100	00105	00206	00211	00234	00245	00261	00317	00353
C00000 IM									
C01510 IC									
C01440 ICHKFLG									
C01464 ICHKNOH									
C14122 ICPLX									
C01700 ID									
C00001 IDATE									
C00002 IDENTNO									
C00000 IGRP	00110	00223	00223	00251	00251				
C00000 IGRPCOMP	00172	00175	00225	00231	00301	00301			
C00000 IL									
P002075 IN000002.	00105	00222	00250	00345	00357				
P00343 IN000006.	00172	00373	00406						
P00344 IN000011.	00300	00361	00371	00374	00407				
C10124 IN00001.									
C10105 IN00001.									
C05574 IN00001.	00076	00077	00107	00107	00110	00165	00165	00170	00171
C07447 IN00001.									
P00411 INITIAL.	00067								
C07157 IRECPCTY									
C00000 ITANK	00143	00146	00327						
C00000 ITAM									
C00000 ITEM									

C00000 ITP  
 C00000 ITW000  
 C01542 IY  
 C00000 I-TAPE  
 P00127 .100  
 P00142 .101  
 P00154 .105  
 P00234 .1420  
 P00317 .1430  
 P00107 .200  
 P00115 .250  
 P00122 .255  
 P00125 .256  
 P00184 .260  
 P00200 .270  
 P00243 .510  
 P00323 .511  
 P00415 .ERASER.  
 P00310 .100000  
 P00011 .100001  
 P00021 .100002  
 P00012 .106  
 P00022 .1421  
 P00052 .1422  
 P00133 .200001.  
 P00146 .200002.  
 P00174 .200003.  
 P00221 .200004.  
 P00231 .200005.  
 P00423 J  
 C00002 JJJCPX  
 C00001 JJJGP  
 C00003 JJJTG'S  
 C04540 JTANK  
 C00000 JTG  
 P00424 K  
 C02044 KORSTY  
 P00425 L  
 C00310 LINKA  
 C01544 LINKC  
 C01762 LINKD  
 C02405 LINKL  
 C04027 LINKR  
 C11300 LOOK  
 C00003 LSIDE  
 C00005 LSRTA  
 C00006 LSRTB  
 C00004 LTOW  
 C00003 LTGRP  
 C00002 LTGT  
 C00001 LTTIN  
 C00000 LTTIN  
 P00426 M  
 P00427 MC

00071 00071 00114 00114 00203 00203  
 00117 00117 00122 00122 00125 00125  
 00124 00124  
 00141 00141  
 00140 00140 00153 00153 00177 00177  
 00121 00121  
 00123 00123  
 00124 00124  
 00121 00121  
 00242 00242  
 00212 00212  
 00072 00072  
 00120 00120  
 00241 00241  
 00157 00157  
 00260 00260  
 00267 00267  
 00130 00130  
 00143 00143  
 00173 00173  
 00216 00216  
 00226 00226  
 00275 00275  
 00303 00303  
 00240 00240  
 00130 00130  
 00164 00164  
 00215 00215  
 00070 00070  
 00202 00202  
 00224 00224  
 00205 00205  
 00070 00070 00113 00113  
 00202 00202  
 00231 00231  
 00205 00205  
 00271 00271 00402 00402  
 00215 00215 00244 00244 00253 00253 00270 00270 00315 00315 00316 00316  
 00114 00114 00122 00122 00154 00154 00164 00164  
 00331 00331 00327 00327 00324 00324 00311 00311 00254 00254 00232 00232 00233 00233 00334 00334

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P00003	MITANK	00152			
P00004	MLTANK	00137			
P00000	MLTCOMP				
C00000	MYUBERT	00073	00073		
C00024	NALEPT				
C00057	HALLOW				
C00017	NASH-TYPE				
C00011	NHNDRY				
C00023	NCLASS				
C00022	NCOMPLEX				
C00005	NCORR				
C00025	NCOH-TYPE				
C00006	NOPEN				
C01130	NEXIZH				
P00030	RG	00252	00253	00310	
C00014	NGROUP	00102	00102	00236	00321
C00016	NPAYLOAD			00236	00321
C00007	NRECOVER			00236	00321
C00010	NREF				
C00012	NREG				
C00004	NRTPT				
P00006	NT	00142	00147	00150	00323
C00021	NTANKHAS				
C03535	NTIMES				
C00015	NTOTRASE				
C00013	NTYPE				
C11110	NTYPS				
P00007	NUNT	00127	00134	00135	00330
P00005	NWUS	00176	00222	00305	
C05116	NWDSGRP	00213	00213	00221	
C00020	NWRTTYPE				
P00345	P00000.U	00350			
P00341	P00001.U	00363			
P00373	P00002.U	00377			
C11517	PA				
C11503	PG				
X00002	Q80DTCT.	00000	00065		
C11543	QA				
C11533	WG				
X00012	QNSINGL.	00340			
X00005	QDARHAY	00131	00144	00174	
X00004	QDORD	00115			
C06337	RECLAT				
C06647	RECLON				
C07777	WFLAT				
C10023	RFLONG				
C05207	RLAT				
C05517	ALONG				
X00003	SETREAD	00074			
X03011	SIH.	00155	00256	00265	
C00000	TAR				
X00007	TER-TAPE	00200	00335		
X00001	THEAD.	00160	00262	00313	
C03547	TIMESTRT				

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C03225 TMAW  
 P00113 TS00001.  
 P00236 TS00002.  
 P00321 TS00003.  
 P00395 TS00004.  
 P00311 TS00005.  
 C00000 TMAW  
 C19516 TYPENAME  
 P00392 UP00000.  
 P00395 UP00001.  
 P00401 UP00002.  
 X00010 WABRAY  
 P00107 W500001.  
 P00211 W500002.  
 P00250 W500003.  
 P00300 W500004.  
 P00274 W500005.  
 C00000 #T  
 C00420 ZONEH  
 C01804 ZONEC  
 00265 SYPRNLS

00103  
 00210  
 00247  
 00277  
 00273  
  
 00101  
 00274  
 00167  
 00217  
 00112  
 00237  
 00322  
 00304  
 00312  
  
 00207  
 00304  
 00272  
 00227  
  
 00235  
 00301  
 00310  
 00325  
  
 00246  
 00366  
 00375  
 00332  
  
 00320  
 00367  
 00402  
  
 00346  
 00370  
 00403  
  
 00353  
 00372  
 00404  
  
 00354  
 00372  
 00410  
  
 00355  
 00357  
 00410  
  
 00360





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C      WATNPFZ      20      AIR DEFENSE ZONES      45000
C      WALENT      20      ALERT CONDITIONS      47000
C      WNSWTP      20      AS* TYPES(10)      48000
C      WNSWTP      20      ROUTING LEGS (LEG=0) (150)  49000
C      WCCREGN      20      COMMAND/CONTROL (20)  50000
C      WCIASS      20      WEAPON CLASSES      51000
C      WCTHYS      250     COUNTRY CODES      52000
C      WCONP      30      DEFENSATION CORRIDORS (20)  53000
C      WCONTP      50      COMBATION TYPES      54000
C      WDEPEN      70      DEPENDENTATION COMBATORS (POI TS) (45)  55000
C      WDEPNLG      200     DEPENDENTATION LEGS(45)  56000
C      WDEPNLG      200     WEAPON GROUPS(100)  57000
C      WDEPNLG      200     PAYLOAD TYPES (PEL SIOF) (40)  58000
C      WDEPNLG      200     RECOVERY BASES(POI TS) (180)  59000
C      WDEPNLG      200     RECOVERY LEGS(50)  60000
C      WDEPNLG      200     REFUEL POINTS(DIRECTED) (20)  61000
C      WDEPNLG      200     ROUTE LEGS(150)  62000
C      WDEPNLG      200     ROUTE POINTS(150)  63000
C      WDEPNLG      200     SITES PER MULTIPLE TARGET(5)  64000
C      WDEPNLG      200     TANKER BASES      65000
C      WDEPNLG      200     TARGET CLASSES(13)  66000
C      WDEPNLG      200     TARGETS COLLOCATED (3000)  67000
C      WDEPNLG      200     TARGET COMPLEXES(TOTAL) (3000)  68000
C      WDEPNLG      200     TARGETS PER COLLOCATION ISLAND(50)  69000
C      WDEPNLG      200     TARGETS (ALLCATION) (3500)  70000
C      WDEPNLG      200     TARGET INDEX NUMBERS (6000)  71000
C      WDEPNLG      200     TARGETS PER EARTH SECTOR(1500)  72000
C      WDEPNLG      200     TRGS WITH TERMINAL INTRCPTRS(ARM) (127)  73000
C      WDEPNLG      200     TARGET TYPES-TOTAL (200)  74000
C      WDEPNLG      200     TARGET COMPLEX WITH VAL GT 1 (1500)  75000
C      WDEPNLG      200     TARGET ELEMENTS PER COMPLEX (30)  76000
C      WDEPNLG      200     WEAPON BASES PER GROUP (150)  77000
C      WDEPNLG      200     WEAPON TYPES (MSLS + 4-RRS / SIOE)  78000
C      WDEPNLG      200     WEAPONS PER GROUP(600/450) (-SLS+RMRS)  79000
C      WDEPNLG      200     WEAPON TYPES (40)  80000
C      WDEPNLG      200     WEAPON TYPES (150)  81000
C      WDEPNLG      200     ZONE POINTS(150)  82000
C      WDEPNLG      200     ZONES(75)  83000
C      WDEPNLG      200     TGT TYPES/CLASS (20/0)  84000
C      WDEPNLG      200     (40=SL+RMRS)/20=OTHERS)  85000
C      WDEPNLG      200     *****
C      WDEPNLG      200     10JAN71 *****
C      WDEPNLG      200     THIS BLOCK CONTAINS THOSE KNOWN IN OTHER PROGRAMS AS /ROUND/,
C      WDEPNLG      200     /CHECK/,/CONR/,/DEPN/,/KORTYP/,/LEG/,/NAVALX/,/POI-T/,
C      WDEPNLG      200     /RADATA/,/RECOV/,/REF/,/AND /TYPE/NAME/,
C      WDEPNLG      200     IT IS REUSED DURING TGT SORT AS ITEM,
C      WDEPNLG      200     AND DURING GRPSORT AS ITANK AND JTANK
C      WDEPNLG      200     *****
C      WDEPNLG      200     /DP00L/ IR(200),LINK8(200),ZONER(200),NEXT28(200),
C      WDEPNLG      200     /ID(50),LINK4(150),KORTYP(5),ILINK(30),ZONEC(30),ITY(30),
C      WDEPNLG      200     /ATTRC(5),IL(200),LINKL(200),AIRL(200),ATMAS(10,10),
C      WDEPNLG      200     /PHLAS(10,10),TIMES(10),TIMESTMT(200),MALLOW(200),
C      WDEPNLG      200     /RLAT(200),RLONG(200),RLAT(200),RLONG(200),LINKR(200),
C      WDEPNLG      200     /RECLAT(200),RECLON(200),TRECPCITY(200),INDOEC(200),
C      WDEPNLG      200     /RFLAT(200),RFLONG(200),CUMNO(15),BTYPES(15),INDCLAS(15),

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* INHREG(250),TYPENAME(250),NTYPS,CHK(250),
* PG(12),PA(12),GG(8),WA(8),
* ITEM(5000),ITANK(12,200),JTANK(12,200)
TYPE INTEGER ZONE,ZONEC
TYPE INTEGER TYPENAME,CHK
TYPE INTEGER CUMNO
EQUIVALENCE (I,ITEMP,ITANK)
EQUIVALENCE (ITEMP(2401),JTANK)
*
CPOL
*
CLASNAME 10JUN71 *****
COMMON /CLASNAME/ CLASNAME(15),CLASVAL(15),CUMVAL(15),VALFAC(15)
TYPE INTEGER CLASNAME
CLASNAME,CLASVAL,CUMVAL,VALFAC(NTARCLS) WHERE
NTARCLS = MAXIMUM NUMBER OF TARGET CLASSES
CLASNAME *****
GROUP 15DEC70 *****
COMMON /GROUP/ GRP(14,210),IGRP(14,210),INDGRP(210),NDUSGRP,
* JTGT(2500)
EQUIVALENCE (GRP,IGRP,JTGT)
*
GRP,IGRP(14,NGROUP+10), AND INDGRP(NGROUP+10) WHERE
NGROUP = MAX NUMBER OF WEAPON GROUPS
JTGT IS USED ONLY IN TGLSORT, AND IS JTGT(1,ANVAL)
GROUP *****
MISC 25JUN71 *****
COMMON /MISC/ IN(5),IT(5),ITTAPE(5)
EQUIVALENCE(IN,FIN),(INTGTS,ITTAPE(5))
*
MISC *****
COMMON /MLTX/ MLT(3),MLTX(8,5),FMLTX(5,5),NMULT
EQUIVALENCE(MLTX,FMLTX)
*
MLTX *****
PRIOR 11NOV70 *****
COMMON/PRIOR/PTASK(48),IPRES(96),PTASK,MPDES,ISURT
TYPE INTEGER TASK,DESIS
PRIOR *****
TAPES 25JUN71 *****
COMMON /TAPES/ LTIN,LTITN,LTITG,LTGRP,LTUR,LSRTA,LSRTB
TAPES *****
TAU 11NOV70 *****
COMMON/TAU/TAU(90),MC(60),VIG(90),INDEX(90),FV(3),T(3),T-0A(3),
* LVORX(3),H(2),FVR(2)
EQUIVALENCE(TAU,MC)
*
TAU *****
TC 30NOV70 *****
COMMON /TC/ TC(31),ITU(31)
EQUIVALENCE(TC,ITU)
*
TO *****
WT 11NOV70 *****
COMMON/WT/WT,DATE,IDENTO,LSIDE,NRTOT,CONC,NUPEN,NRECOVER,
* NREF,NNDRY,NNEG,NTYPE,NGROUP,NTUBASE,NPAYLOAD,NASMTYPE,
* NHHOTYPE,NTANKAS,NCONPLEX,NCLASS,NALERT,NCORTYPE,
* INTAPE(22)
EQUIVALENCE(IN,TAPE,WT)
*
WT *****
T 30NOV70 *****
COMMON /T/ MAXICOMP,NCPX(2500)

```

```

C
CE-0 1 NGRX(NTARVAL) *HREF NTARVAL = MAX NUM TGT COMPLEXES,VAL GT G 2000
CUSE 2 30NOV70 ..... 107000
COMMON /2/ WHT(3,50),IPL(3,50),ASHT(5,20),IASHT(5,20), 1000
* EQUIVALENCE (WHT,IPL), (IPL,ASHT), (ASHT,IPL), (WHT,IPL), (IPL,ASHT), 3000
WHT,IPL(3,50),IPL(3,50),ASHT(5,20),IASHT(5,20), 4000
ASHT,IPL(3,50),IPL(3,50),ASHT(5,20),IASHT(5,20), 5000
PLD,IPL(3,50),IPL(3,50),ASHT(5,20),IASHT(5,20), 6000
NGR(ACCRG), *MCCRG=MAX NUM COMMAND/CONTROL 7000
WTP,IPL(2,TYPE), *TYPE = MAX NUM WEAPON TYPES 10000
CE-0 2 ..... 108000
CUSE 3 15NOV70 ..... 109500
COMMON /3/ LTANK(12),TANK(12),GRPA(6),IGRPA(6) 1000
EQUIVALENCE (TANK,LTANK,GRPA,IGRPA) 2000
CE-0 12 ..... 108500
CUSE 3 ..... 109000
COMMON /12/ TAR(29,250),ITAR(29,250),CPLX(30,250),ICPLX(30,250), 1000
GRGCOMP(5,250),TGRPCOMP(5,250) 2000
* EQUIVALENCE (TAR,ITAR,GRGCOMP,TGRPCOMP), 5000
(CPLX,ICPLX) 6000
COMMON /DIRECTRY/ MLTCOMP (R=600), FULTCOMP (H=500), LOCK (30), 6200
* FILL (206) 6300
EQUIVALENCE (MLTCOMP,FULTCOMP) 6400
TAR(29,250), *WGT = MAX NUM TARGET TABLE ENTRIES 7000
CPLX(29,250), *MCOMP = SIZE OF COMPLEX TGT ARRAY 8000
MLTCOMP(8,250), *MULTI = MULTIPLE TGT DATA ARRAY 9000
GRGCOMP(5,250), *MPCD = TABLE FOR DATA ON EA WEAPON IN GROUP 11000
LTANK(12,250), *WTKHL = TABLE FOR TANKER DATA 12000
CE-0 /DIRECTRY/ IS SO NAMED TO REUSE BLOCK USED BY PLANDATA 12300
C FILL DEFINED ONLY TO MAKE LENGTH SAME AS ORIGINAL COMMON 12500
C 12 ..... 12700
CE-0 ..... 109000
C ..... 110000
DATA (TNS(0)) ..... 111000
DATA (TTAPE=5(0)) ..... 112000
DATA (LTINS=10) ..... 113000
DATA (LTINS=9) ..... 114000
DATA (LTGT=3) ..... 115000
DATA (LTGRP=4) ..... 116000
DATA (LTOR=1) ..... 117000
DATA (LSRTA=5) ..... 118000
DATA (LSRTB=6) ..... 119000
DATA (FW=3(0,1)) ..... 120000
DATA (T=3(0,1)) ..... 121000
DATA (TAX=3(0,1)) ..... 122000
DATA (VPOX=3(0,1)) ..... 123000
DATA (W=2(0,1)) ..... 124000
DATA (FVW=2(0,1)) ..... 125000
DATA (CLASVAL=15(0,1)) ..... 125020
DATA (CUMVAL=15(0,1)) ..... 125040
DATA (VALFAC=15(0,1)) ..... 125060
C ..... 125080
C ..... 125100

```

```

C
DATA (MULT=31(0))
DATA (MULT=0(0))
DATA (MULT = 0)

DATA (MTASK=0)
DATA (WODES=0)
DATA (TSUR=0)
DATA (PTASK=0(0))
DATA (PDES=Y(0))

C
DO 10 I=1,5000
  ITAP(I)=0
10 CONTINUE

C
  WSGW=0
  JMAX=100000000
  DO 60 I=1,JMAX
    ICAP(I)=0
  60 CONTINUE
  DO 70 I=1,NGROUP
    INGRP(I)=0
  70 CONTINUE

C
  DO 190 I=1,90
    TAU(I)=0
    V(I)=0
    INEXT(I)=0
  190 CONTINUE

C
  DO 200 I=1,31
    IT(I)=0
  200 CONTINUE

C
  DO 230 I=1,22
    ITAP(I)=0
  230 CONTINUE

C
  WATCO=0
  DO 240 I=1,NTOTAL
    WCP(I)=0
  240 CONTINUE

C
  JMAX = 2 * WATYPE
  DO 250 I=1,JMAX
    I=0(I)=0
  250 CONTINUE
  JMAX = 5 * WATYPE
  DO 260 I=1,JMAX
    AS(I)=0
  260 CONTINUE
  JMAX = 10 * WATLON
  DO 270 I=1,JMAX
    PL(I)=0
  270 CONTINUE
  DO 275 I=1,WCCEGA
    WCP(I)=0

```

CLEAR COMMON /PRIOR/

CLEAR COMMON /PPOOL/

CLEAR COMMON /GROUP/

CLEAR COMMON /TAU/

CLEAR COMMON /IN/

CLEAR COMMON /AT/

CLEAR COMMON /I/

CLEAR COMMON /J/

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```
275 CONTINUE
      JMAX = 20 * TYPE
      DO 280 I=1,NVDE
        AT(I)=0.
      280 CONTINUE
      C
      DO 290 I=1,12
        ITAX(I)=0
      290 CONTINUE
      C
      DO 310 I=1,10750
        ITAX(I)=0
      310 CONTINUE
      RETURN
      END
```

CLEAR COMMON /1/

CLEAR COMMON /12/

291000  
292000  
293000  
294000  
295000  
295200  
295400  
295600  
295800  
296000  
297000  
298000  
299000  
300000  
304000

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# 5.ATS INITIALS

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## IDENT INITIALS

PROGRAM LENGTH ENTRY POINTS BLOCK NAMES	INITIALS	IDENT	INITIALS
MAX		00210	
OPPOL		00003	
CLASSNAME			
GROUP		00047	
MISC		11619	
PLTX		00074	
PHIOU		04117	
TAPES		00012	
TAU		00110	
TO		00223	
VT		00007	
1		00436	
2		00037	
3		00026	
12		04705	
UNFECTHY		04336	
00014			
34636			
11654			

EXTERNAL SYMBOLS  
00001CT.

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C00226 ASMT	00122	00123							
C02715 ATPL									
C02070 ATTAC									
C02063 ATTMS	00201								
P00200 REGIM.									
C04357 ALAT									
C04677 WLONG									
C10046 WTYPEFS									
C11111 CHK									
C00000 CLASNAME									
C00017 CLASVAL	00003								
P00205 COUNT.	00025								
	00133								
C1A122 CPLX									
C10047 CUMNO									
C00036 CUMVAL	00003								
C03371 URLAS*									
C02056 UFEF									
P00001 DICT.	00005								
P00202 ENDING.	00006								
P00000 EXIT.	00203								
C11336 FILLH									
C00000 FIN									
C00000 FULTCOMP									
C00037 FULTX									
C00416 FV	00003								
C00434 FVM	00003								
C00000 GPP									
C00000 GRPCOMP									
C00000 GRPX									
C00432 M	00003								
C00000 MC									
C02051 MIL0AT									
P00206 I									
C00226 IASMT									
C00000 IN									
C01510 IC									
C01440 ICMKFLG									
C01464 ICMKNUM									
C1A122 ICPLX									
C01700 IO									
C02001 IDATE									
C00002 IDENTNO									
C00000 IGRP									
C00000 IGRPCOMP									
C00000 IGRPXP									
C02075 IL									
C00000 IN									
C10124 IND-EG									
C10105 INDCLAS									
C00264 INDEXT									
C05574 INDGMP									





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CO0000	MAXICOMP	000070	000070	000070
CO0003	MEMORY	000003	000003	000003
CO0004	ACCEP	000004	000004	000004
CO0005	ACCEP	000005	000005	000005
CO0006	ACCEP	000006	000006	000006
CO0007	ACCEP	000007	000007	000007
CO0010	ACCEP	000010	000010	000010
CO0012	ACCEP	000012	000012	000012
CO0011	ACCEP	000011	000011	000011
CO0013	ACCEP	000013	000013	000013
CO0037	ALIA	000037	000037	000037
CO0014	PAYLON	000014	000014	000014
CO0021	IPNES	000021	000021	000021
CO0020	MTASK	000020	000020	000020
CO0015	RECORA	000015	000015	000015
CO0016	RECORA	000016	000016	000016
CO0017	RECORA	000017	000017	000017
CO0020	RTLEG	000020	000020	000020
CO0021	RTLEG	000021	000021	000021
CO0022	SPEMPT	000022	000022	000022
CO0023	TAKAS	000023	000023	000023
CO0024	TAKAS	000024	000024	000024
CO0025	TAKAS	000025	000025	000025
CO0026	TAKAS	000026	000026	000026
CO0027	TAKAS	000027	000027	000027
CO0030	TARGET	000030	000030	000030
CO0031	TARGET	000031	000031	000031
CO0032	TARGET	000032	000032	000032
CO0033	TARGET	000033	000033	000033
CO0034	TARGET	000034	000034	000034
CO0035	TARGET	000035	000035	000035
CO0036	TARGET	000036	000036	000036
CO0037	TARGET	000037	000037	000037
CO0040	MULT	000040	000040	000040
CO0041	MULT	000041	000041	000041
CO0042	MULT	000042	000042	000042
CO0043	MULT	000043	000043	000043
CO0044	MULT	000044	000044	000044
CO0045	MULT	000045	000045	000045
CO0046	MULT	000046	000046	000046
CO0047	MULT	000047	000047	000047
CO0048	MULT	000048	000048	000048
CO0049	MULT	000049	000049	000049
CO0050	MULT	000050	000050	000050
CO0051	MULT	000051	000051	000051
CO0052	MULT	000052	000052	000052
CO0053	MULT	000053	000053	000053
CO0054	MULT	000054	000054	000054
CO0055	MULT	000055	000055	000055
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CO0057	MULT	000057	000057	000057
CO0058	MULT	000058	000058	000058
CO0059	MULT	000059	000059	000059
CO0060	MULT	000060	000060	000060
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CO0070	MULT	000070	000070	000070
CO0071	MULT	000071	000071	000071
CO0072	MULT	000072	000072	000072
CO0073	MULT	000073	000073	000073
CO0074	MULT	000074	000074	000074
CO0075	MULT	000075	000075	000075
CO0076	MULT	000076	000076	000076
CO0077	MULT	000077	000077	000077
CO0078	MULT	000078	000078	000078
CO0079	MULT	000079	000079	000079
CO0080	MULT	000080	000080	000080
CO0081	MULT	000081	000081	000081
CO0082	MULT	000082	000082	000082
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CO0086	MULT	000086	000086	000086
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CO0090	MULT	000090	000090	000090
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CO0100	MULT	000100	000100	000100
CO0101	MULT	000101	000101	000101
CO0102	MULT	000102	000102	000102
CO0103	MULT	000103	000103	000103
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CO0105	MULT	000105	000105	000105
CO0106	MULT	000106	000106	000106
CO0107	MULT	000107	000107	000107
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CO0111	MULT	000111	000111	000111
CO0112	MULT	000112	000112	000112
CO0113	MULT	000113	000113	000113
CO0114	MULT	000114	000114	000114
CO0115	MULT	000115	000115	000115
CO0116	MULT	000116	000116	000116
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CO0119	MULT	000119	000119	000119
CO0120	MULT	000120	000120	000120
CO0121	MULT	000121	000121	000121
CO0122	MULT	000122	000122	000122
CO0123	MULT	000123	000123	000123
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CO0125	MULT	000125	000125	000125
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CO0190	MULT	000190	000190	000190
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CO0192	MULT	000192	000192	000192
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CO0194	MULT	000194	000194	000194
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CO0196	MULT	000196	000196	000196
CO0197	MULT	000197	000197	000197
CO0198	MULT	000198	000198	000198
CO0199	MULT	000199	000199	000199
CO0200	MULT	000200	000200	000200
CO0201	MULT	000201	000201	000201
CO0202	MULT	000202	000202	000202
CO0203	MULT	000203	000203	000203
CO0204	MULT	000204	000204	000204
CO0205	MULT			

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CO0107	WULT	00003
CO0014	WYALON	
CO0007	WRECOVER	
CO0010	WREF	
CO0012	WREG	
CO0004	WRTPT	
CO0021	WTANKAS	
CO0011	WTGTS	
CO0034	WTIMES	
CO0015	WUTBASE	
CO0013	WUTYPE	
CO0110	WUTYPE	
CO0114	WUTSSEP	00015 00015
CO0020	WUTTYPE	
CO0117	WV	
CO0103	WV	00134 00135
CO0001	WV	00000 00004
CO0153	WV	
CO0337	WVCLAT	
CO0547	WVCLON	
CO0777	WVFLAT	
CO0023	WVFLONG	
CO0121	WVGN	00145 00146
CO0517	WVLONG	
CO0421	WV	00003
CO0000	WV	
CO0000	WV	00044 00047
CO0000	WV	00003
CO0424	WV	
CO0547	WV	
CO0324	WV	00024
CO0003	WV	00034
CO0101	WV	00073
CO0113	WV	00105
CO0125	WV	00117
CO0137	WV	00131
CO0150	WV	00142
CO0163	WV	00154
CO0116	WV	00050
CO0132	WV	00003
CO0055	WV	00003
CO0427	WV	
CO0000	WV	
CO0012	WV	00014
CO0027	WV	00031
CO0040	WV	00042
CO0044	WV	00052
CO0046	WV	00060
CO0048	WV	00064

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P01076 \*S00007.  
 P01110 \*S00010.  
 P01122 \*S00011.  
 P01134 \*S00012.  
 P01145 \*S00013.  
 P01159 \*S00014.  
 P01166 \*S00015.  
 P01174 \*S00016.  
 C02000 \*T  
 C01236 \*TP  
 C01420 ZONEP  
 C01604 ZONEC  
 00341 SY\*40LS

00100  
 00112  
 00124  
 00136  
 00147  
 00157  
 00170  
 00176  
 00160  
 00141

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```

CE 11
CUSE
      AT
      MISC
      COMMC/INTSC/INT(5),FI(5),ITTAPE(5)
      EQUIVALENCE(IN,FIN),INTGTS,ITTAPE(5)
      MISC
      2
      30NOV70
      COMMON /Z/ AM(13,50),I-M(3,50),ASW(5,20),IAS(15,20),
      * PL(10,60),IPLC(10,60),WGM(20),WTP(20,80),ITP(20,80)
      EQUIVALENCE (ENDAT,END), (AS-1,IASH), (WTP,ITP), (PLC,IPL)
      * ASW(1,ASW(1,5),MWHOTHE), * XDUPE=MAX NIK WARHEA: TYPES
      C ASW(1,ASW(1,5),MWHOTHE), * XDUPE=MAX NIK WARHEA: TYPES
      C PL(1,PL(1,1),PAYLOH), * PAYLOH=MAX NIK PAYLOH: TYPES
      C PGN(ACCPEN), * MCCFRG=MAX NIK COMMAND/CONTOL
      * TPL(1,ITP(1,1),TYPE), * TYPE = MAX NIK WEAPON TYPES
      C 2
      30NOV70
      COMMON /I/ MAXICOMP,NCPR(2500)
      * NCPR(MTARVAL) WHERE MTARVAL = MAX NIK IGT COMPLEXES,VAL GT 0
      C 1
      GROUP
      15DECTA
      COMMON /GROUP/ GRP(14,210),IGRP(14,210),TANGRP(210),WCSGRP,
      * JTG(2300)
      * EQUIVALENCE (C-P,IGRP,JTG)
      C GRP(IGRP(14,1),GROUP,10), AND INDGRP(MGROUP,10) WHERE
      * MGROUP = MAX NUMBER OF WEAPON GROUPS
      C JTG IS USED ONLY IN TGISORT, AND IS JTG(1,1)
      C 12
      25JUN71
      COMMON /I2/ IAR(29,250),ITAR(29,250),CPLX(30,250),ICPLX(30,250),
      * GRPCOMP(5,2500),IGRPCOMP(5,2500)
      * EQUIVALENCE (IAR,ITAR,GRPCOMP,IGRPCOMP),
      * (CPLX,ICPLX)
      * COMMON /DIRECTRY/ ALICOMP (5,600), FMICOMP (4,600), LOCK (30),
      * EQUIVALENCE (ALICOMP,FMICOMP)
      * IAR(29,ITAR(1), MTGT = MAX NIK TARGET TABLE ENTRIES
      C CPLX(29,GRPCOMP), MCOMP = SIZE OF COMPLEX IGT ARRAY
      C MLCOMP(4,1),MULTI, *MULTI=SIZE OF MULTIPLE IGT DATA ARRAY
      C GRPCOMP(5,MGRP), *MGRP = TABLE FOR DATA OF EA WEAPON IN GROUP
      C ITAR(12,ITAR(1), *ITARL = TABLE FOR TARGET DATA
      C
      * DIRECTRY/ IS SO NAMED TO REUSE BLOCK USED BY PLANDATA
      C
      12
      FILL DEFINED ONLY TO MAKE LENGTH SAME AS ORIGINAL COMMON
      C
      PRIOR
      12NOV70
      COMMON/PRIOR/TASK(44),INDEX(9),MPTASK,MPTES,ISORT
      * TYPE INTEGER TASK,DESIG
      C
      PRIOR
      30NOV70
      * COMMON /MAX/ MAIDEZ, MALEDT, MASHTYP, MAMURY, MCCFRGN,
      1 MCLASS, *COTRYS, MCOMP, MCORTYP, MHPEN,
      2 MDEPNLG, *GROUP, MPAYLOH, MNECOVR,
      3 MNECVLG, *REF, *MTLFG, *MTDT,
      4 MDEPNLT, *TANKS, *TANCLS, *TARCOL, *TANCPX,
      5 *TAREFS, *TARGET, *TARIND, *TARSEC,
      6 *TARTYP, *TARVAL, *TELMOH, *TOTRAS,
      C

```

1214

```

7  MTYPE, MVULN, MWARP, MWMDTPE, MZONEPT,
8  MZONES, MTARPCCL
END MAX *****
DATA MASK1 = 7700000000000000B)
DATA MASK2 = 7777000000000000H)
DATA I1I1=0)
DATA I1I2=0)
ITESTZ = IH .AND..NOT..MASK1.OR..MASK1
HEAD INPUT PRIORITY CAMUS

C PRINT 17
17 FORMAT(16#TASK PRIORITIES)
ON 182 J=1,6
I1I1=I22+1 $ I22=I22+A
READ 180,(IPTASK(I),I=I1,I22)
PRINT 1800,(IPTASK(I),I=I1,I22)
180 FORMAT(A(48,2X))
1800 FORMAT(1X,A(4P,2X))
DO 181 I=I1,I22
IF (IPTASK(I).EQ.AM )183,181
181 CONTINUE
182 CONTINUE
183 METASK=I-1
ISUITEO & I=I-1
IPTSK = IPTASK(I) .AND. ITESIZ
IF (IPTASK(I) .EQ. IPTSKX) 183Z, 183I
183I ISUITE=1
DO 183IO I=1,MPTASK
IPTASK(I)=(IPTASK(I)+AM)*MASK2)
GO TO 1833
183Z DO 183ZO I=1,MPTASK
IPTASK(I)=(IPTASK(I)+AM)*MASK1)
1833 CONTINUE
PRINT 18
18 FORMAT(17#MODESIG PRIORITIES)
I1I1=I22+0
DO 185 J=1,12
I1I1=I22+1 $ I22=I22+A
READ 180,(IPDS(I),I=I1,I22)
PRINT 1800,(IPDS(I),I=I1,I22)
DO 184 I=I1,I22
IF (IPDS(I).EQ.AM )184A,184
184 CONTINUE
185 CONTINUE
184A IPDES(I)=1
DO 186O I=1,MPDES
IPDES(I)=(IPDES(I)+AM)*MASK2)
RETURN
C SHUFFLE CALLED AT END OF PLANDATA
ENTRY SHUFFL
MWUSGRP=14
CLEAR /DIRCTRY/
C DO 20 K=1,4800
MLTCOMP(K)=0
20 CONTINUE
MYIDENT=7#MINFILE
ITP=LTWIN $ CALL SETWRITE

```

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```

MYIDENT=7MTINFILE
ITP=LTIN 5 CALL SETWRITE
NTGTS=INTAPE(1)
ITTAPE(1)=7MTINFILE
ITTAPE(2)=NOWDATE
ITTAPE(3)=NOWTIME
DO 10 I=2,4
  10 ITTAPE(I)=INTAPE(I)
ITP=LTIN
CALL WRAPPRAY(ITTAPE,5)
INTAPE(1)=7MTINFILE COPY DATA TO WINFILE

ITP=LTWIN
CALL WRAPPRAY(ITTAPE,22)
PRINT 200
200 FORMAT (15H1MTINFILE HEADER//)
PRINT 250, (INTAPE(J), J=1,22)
250 FORMAT (4(2X,A//),18(2X,I8//))
NWD5=2*NTARTYPE
CALL WRAPPRAY(IJBER,NWD5)
NWD5=3*NTANGLS
CALL WRAPPRAY(CUMNO,NWD5)
DO 610 I=1,NCDTYPE
  CALL WRITER(KOMSTV(I),HILQAT(I),DEFH(I),ATTWS(I),ATTAC(I),5)
610 CONTINUE
DO 620 I=1,NCDWR
  II=IC(I)
  CALL WRITER(LINKC(I),RLAT(II),RLONG(II),ZONEC(II),ITY(II),5)
620 CONTINUE
DO 630 I=1,NRTPT
  II=IL(I)
  CALL WRITER(LINKL(II),RLAT(II),RLONG(II),ATRL(II),0,4)
630 CONTINUE
DO 640 I=1,NOPFN
  II=IO(I)
  CALL WRITER(LINKD(II),RLAT(II),RLONG(II),0,0,3)
640 CONTINUE
DO 650 I=1,NRECOVER
  CALL WRITER(LINKR(I),RECLAT(I),RECLON(I),INECAPTY(I),TMINREC(I),5)
650 CONTINUE
DO 660 I=1,NHFF
  CALL WRITER(RFLAT(I),RFLONG(I),0,0,0,2)
660 CONTINUE
DO 670 I=1,NHNDRY
  II=IR(I)
  CALL WRITER(LINKB(I),RLAT(II),RLONG(II),ZONER(II),NEXTZB(II),5)
670 CONTINUE
ITP=LTWIN
CALL TGT SORT(NTGTS)
M = 3 * NWDTYPE
CALL WRAPPRAY(MD,M)
M = 5 * NASTYPE
CALL WRAPPRAY(ASMT,M)
M = 10 * NPAYLOAD
CALL WRAPPRAY(IPLD,M)
CALL WRAPPRAY(RGN,NREG)

```

FTNS.5

✓ = 20 \* NTPK  
CALL GARRAY (TWP,M)  
70 CALL GNPSONT  
WFTJUN  
EPA)

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114000  
115000  
116000  
117500  
119000

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SATS SHUFFLE

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INFNT SHUFFLE

PROGRAM LENGTH  
ENTRY POINTS

SHUFFLE1  
SHUFFLE

00724  
00330  
00070

BLOCK NAMES

ITP  
NOP-INT  
TRU-1  
MY-INT  
TAPES  
DPOOL  
CLAS-AME  
TODAY  
AT  
MISC  
2  
1  
GROUP  
12  
DIN-CTRY  
PRIOR  
MAX

00001  
00001  
00001  
00001  
00007  
11610  
00074  
00003  
00024  
00012  
04334  
04705  
04117  
34436  
11054  
00223  
00047

EXTERNAL SYMBOLS

MEMO.  
OR-ICT.  
SET-ITE  
WH-ARY  
WRITER  
IGTS-RT  
GRPS-RT  
ISH.  
SIM.  
QMS-IGL.





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P00676	.70								
P00007	..100000	00074							
P00032	..100001	00153							
P00041	..100002	00303							
P00042	..100003	00343							
P00043	..100004	00351							
P00044	..100005	00361							
P00045	..100006	00402							
P00010	..17	00102							
P00015	..180	00114							
P00023	..1400	00134							
P00033	..14	00231							
P00046	..200	00414							
P00054	..250	00422							
P00062	..300001	00453							
P00505	..200002	00475							
P00527	..200003	00520							
P00550	..200004	00542							
P00570	..200005	00561							
P00605	..200006	00601							
P00630	..200007	00620							
P00722	J	00106							
C00450	JTANK								
C00000	JTGT								
C00723	K	00337							
C02044	KORSTV	00453							
C00310	LINKA	00020							
C01546	LINKC	00474							
C01762	LINKD	00505							
C02405	LINKL	00520							
C06027	LINKR	00561							
C11300	LOOK								
C00003	LSIDE								
C00005	LSRTA								
C00006	LSRTB								
C00004	LTOR								
C00003	LTORP								
C00002	LTGT								
C00001	LITIN								
C00000	LITIN								
P00724	M								
C00000	MALQNEZ								
C00001	MALERT								
P00003	MASK1								
P00004	MASK2								
C00002	MAS-TYP								
C00000	MAXICOMP								
C00003	MNDRY								
C00004	MCREGN								
C00005	MCLASS								
C00006	MCTRYS								
C00007	MCHRR								
C00010	MCHRTYP								
C00012	MCHENLG								
		00353	00375	00375	00404	00404	00441	00441	00675
		00345	00350	00353	00353	00353	00361	00361	00672
		00075	00075	00222					00675
		00204	00323						

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C00011	WDPEN				
C00013	WGROUP	00340	00341		
C00000	WLCOMP				
C00014	WPAVL0D				
C00021	WPDEN	00313	00314	00310	00316
C00020	WPIASK	00163	00164	00201	00214
C00015	WPCOVR				00215
C00016	WRECVLG				
C00017	WREF				
C00020	WYLEG				
C00021	WRTPT				
C00022	WSPEDWT				
C00023	WTANKAS				
C00024	WTARCLS	00442	00443		
C00025	WTARCOL				
C00026	WTARCPX				
C00027	WTAMERS				
C00030	WTARGET				
C00031	WTARIND				
C00046	WTARPCL				
C00032	WTARSEC				
C00033	WTARTFI				
C00034	WTARTYP	00434	00435		
C00035	WTARVAL				
C00036	WTELMCH				
C00037	WTOTRAS				
C00040	WTYPE				
C00041	WVULN				
C00042	WWEAPGP				
C00043	WWMOTPE				
C00000	WYINENT	00344	00344	00352	00352
C00044	WZONEPT				
C00045	WZONES				
C00024	WALERT				
C00057	WALLOW	00651	00652		
C00017	WASMTYPE	00634	00634		
C00011	WANDRY				
C00023	WCLASS				
C00022	WCOMPLEX				
C00005	WCOORR	00511	00511		
C00025	WCORTYPE	00466	00466		
C00001	WCPX				
C00004	WDPEN	00554	00554		
C01130	WEXTZR	00624	00632		
C00014	WGROUP				
C00000	WOPRINT				
C00001	WOWDATE	00363	00363		
C00000	WOWRUM0				
C00002	WOWTIME	00365	00365		
C00016	WPAVL0A0	00657	00660		
C00007	WRECOVER	00574	00574		
C00010	WREF	00611	00611		
C00012	WREG	00667			
C00004	WRTPT	00533	00533		

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C00021	RTANKBAS	00360	00360	00640					
C00011	NTGTS								
C03535	NTIMES								
C00015	NTOTBASE	00670	00671						
C00013	NTYPE								
C11110	NTYPS								
P00725	NWDS	00436	00441	00444	00447				
C06116	NWDSGRP	00334	00335						
C00020	NWHDTYPE	00643	00644						
C11517	PA								
C11503	PG								
C00372	PLD								
X00002	Q00DICT.	00000	00071	00331					
C11543	QA								
C11533	QB								
X00012	QMSINGL.	00701	00570						
C06337	RECLAT	00562	00571						
C06647	RECLON	00563	00571						
C07777	RFLAT	00601	00605						
C10023	RFLONG	00602	00605						
C01212	RGN	00607	00505	00527	00543	00530			
C05207	RLAT	00476	00506	00522	00544	00551			
C05517	RLONG	00477	00506	00530	00544	00551			
X00003	SETHRITE	00347	00355						
P00330	SHUFFL1	00330							
P00070	SHUFFLE	00070							
X00011	STM.	00100	00132	00227	00262	00412	00420		
C00000	TAR								
X00006	TGTSORT	00636							
X00001	THEMO.	00103	00127	00145	00232	00257	00415	00432	
C03547	TIMESTRT								
C03225	TMASW								
P00125	TS00002.	00120							
P00143	TS00003.	00136							
P00156	TS00004.	00150							
P00212	TS00005.	00202							
P00226	TS00006.	00216							
P00255	TS00010.	00250							
P00273	TS00011.	00266							
P00306	TS00012.	00300							
P00327	TS00013.	00317							
P00466	TS00017.	00451							
P00511	TS00020.	00471							
P00533	TS00021.	00514							
P00554	TS00022.	00536							
P00574	TS00023.	00557							
P00611	TS00024.	00577							
P00634	TS00025.	00614							
X00010	TSN.	00114	00244						
C00000	TWORO								
C10516	TYPENAME								
C00055	VALFAC								
C00000	WHD	00650	00377						
X00004	WRARRAY		00406	00437	00445	00646	00654	00662	00665 00673

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5.ATS

SHUFFLE

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00566

00546

00525

00503

00626

X00005 WRTTR 00460 00503 00525 00546 00566 00603 00626  
 P00107 W000001. 00161  
 P00121 W000002. 00126  
 P00137 W000003. 00144  
 P00151 W000004. 00157  
 P00205 W000005. 00211  
 P00221 W000006. 00225  
 P00237 W000007. 00311  
 P00251 W000010. 00256  
 P00267 W000011. 00274  
 P00301 W000012. 00307  
 P00322 W000013. 00324  
 P00340 W000014. 00342  
 P00372 W000015. 00374  
 P00425 W000016. 00431  
 P00452 W000017. 00467  
 P00472 W000020. 00512  
 P00515 W000021. 00534  
 P00537 W000022. 00555  
 P00560 W000023. 00575  
 P00600 W000024. 00612  
 P00615 W000025. 00635  
 C00000 W1  
 C01236 WTP  
 C00620 ZONEB  
 C01604 ZONEC  
 00436 SYMBOLS

```

SUBROUTINE TGT SORT (INTARI)
  CSUBR      TGT SORT 25 OCT 71 *****
  CUSE      IFTPRNT 11 NOV 70 *****
  COMMON /IFTPRNT/IFTPRNT(10) *****
  CEND      IFTPRNT *****
  CUSE      ITP 11 NOV 70 *****
  COMMON /ITP/ITP *****
  CEND      ITP *****
  CUSE      TWORD 11 NOV 70 *****
  COMMON /TWORD/TWORD,ITWORD *****
  EQUIVALENCE (TWORD,ITWORD) *****
  CEND      TWORD *****
  CUSE      TWORD *****
  COMMON /MYTENT/MYTENT *****
  CEND      MYTENT *****
  CUSE      MYTENT *****
  TAPES 25 JAN 71 *****
  COMMON /TAPES/ LTIM,LTIN,LTGT,LTGRP,LTOR,LSSTA,LSRTH *****
  TAPES *****
  CLASNAME 10 JUN 71 *****
  COMMON /CLASNAME/ CLASNAME(15),CLASVAL(15),CUMVAL(15),VALFAC(15) *****
  TYPE INTEGER CLASNAME *****
  CLASNAME,CLASVAL,CUMVAL,VALFAC (INTARCLS) WHERE *****
  *TARCLS = MAXIMUM NUMBER OF TARGET CLASSES *****
  C      CLASNAME *****
  CEND      CLASNAME *****
  CUSF      DPPOOL 18 JAN 71 *****
  C      DPPOOL *****
  C      THIS BLOCK COMBINES THOSE KNOWN IN OTHER PROGRAMS AS /ROUND/,
  C      /CHECK/,/CORR/,/DEPN/,/KORTYP/,/LEG/,/NAVALX/,/POI-T/,
  C      /RADATA/,/REC OV/,/REF/,AND /TYPE NAME/.
  C      IT IS REUSED DURING TGT SORT AS ITEM P,
  C      AND DURING GRP SORT AS ITANK AND JTANK
  C      COMMON /DPPOOL/ 18(200),LINK(200),ZONES(200),NEXTZ(200),
  C      * ICHKFLG(20),ICHRUM(20),IC(30),LINKC(30),ZNEC(30),ITY(30),
  C      * IO(50),LINKIO(50),KORSTY(5),HILOAT(5),DEFRT(5),ATTRS(5),
  C      * ATTRC(5),TL(200),LINKL(200),ATRL(200),TMA5(10,10),
  C      * UPLAS(10,10),NTIMES(10),TIMESTRT(200),NALLOW(200),
  C      * RLAT(200),RLONG(200),RLAT(200),HLONG(200),LINKR(200),
  C      * RECLAT(200),RECLON(200),TRECPTY(200),TNDNEC(200),
  C      * RFLAT(20),RFLONG(20),CUMNO(15),MTYPES(15),INDCLAS(15),
  C      * INDNEG(250),TYPE NAME(250),NTYPS,CHK(250),
  C      * PG(12),PA(12),QG(8),QA(8),
  C      * ITEM P(5000),ITANK(12,200),JTANK(12,200)
  C      TYPE INTEGER ZONES,ZNEC
  C      TYPE INTEGER TYPE NAME,CHK
  C      TYPE INTEGER CUMNO
  EQUIVALENCE (IT,ITEMP,ITANK)
  EQUIVALENCE (ITE4P(240),JTANK)
  C      DPPOOL *****
  C      LCPX 18 JAN 71 *****
  COMMON /LCPX/ LCPX(2500),ICNUM(125),ICPNT(125),ICNDA(125),
  C      * LTYPE(250) *****
  EQUIVALENCE (LCPX,ICNUM), (LCPX(126),ICPNT)
  EQUIVALENCE (LCPX(251),ICNDA), (LCPX(376),LTYPE)
  C      LTYPE USED ONLY IN PLANSET
  C      LCPX(K) IN TGT SORT POINTS TO ICPLX ARRAY FROM COMPLEX NUM K

```



```

C      ICNUM,ICNDX,ICPNT(MC*COMP),MHCUMP(1/2*MC*COMP),M1/2 SIZE OF CPLX
C      USED TO SORT PRINTOUT BY [COMPLEX
C      LCPX
CEND
CUSE
1      30NOV70 *****
COMMON /1/ MAXICOMP,MCPX(2500)
1      MCPX(MTARVAL) WHERE MTARVAL = MAX NUM TGT COMPLEXES,VAL GT 0
CEND
CUSE
1      *****
GROUP 15NOV70 *****
COMMON /GROUP/ GRP(1,4,210),IGRP(1,4,210),INDGRP(210),NMDSGRP,
*      JTG(2500)
EQUIVALENCE (GRP,IGRP,JTGT)
C      GRP,IGRP(1,4,GRP),INDGRP(1,4,GRP) WHERE
C      *GROUP = MAX NUMBER OF WEAPON GROUPS
C      JTG IS USED ONLY IN IGT SORT, AND IS JTG(MTARVAL)
C      *****
C      GROUP 25JUN71 *****
12      *****
COMMON /12/ TAR(29,250),ITAR(29,250),CPLX(30,250),ICPLX(30,250),
1      GRPCOMP(5,2500),IGRPCOMP(5,2500)
EQUIVALENCE (TAR,ITAR,GRPCOMP,IGRPCOMP,
*      ICPLX,ICPLX)
C      *****
C      COMMON /DIRECTRY/ MLTCOMP (8,600), FMLTCOMP (8,600), LONK (30),
*      FILLR (200)
EQUIVALENCE (MLTCOMP,FMLTCOMP)
C      TAR(29,MTGT), MTGT = MAX NUM TARGET TABLE ENTRIES
C      CPLX(129,MCOMP), MCOMP = SIZE OF COMPLEX TGT ARRAY
C      MLTCOMP(8,MMULT), MMULT=SIZE OF MULTIPLE TGT DATA ARRAY
C      GRPCOMP(5,MMPND), MMPND = TABLE FOR DATA ON EA WEAPON IN GROUP
C      ITANK(12,MKTAL), MKTAL = TABLE FOR TANKER DATA
C      *****
C      /DIRECTRY/ IS SO NAMED TO REUSE BLOCK USED BY PLANDATA
C      FILLR DEFINED ONLY TO MAKE LENGTH SAME AS ORIGINAL COMMON
C      *****
C      12      30NOV70 *****
C      *****
C      COMMON /MLTX/ MLTX(31),MLTX(8,5),FMLTX(8,5),NMULT
EQUIVALENCE (MLTX,FMLTX)
C      *****
C      MLTX *****
C      PRCNTL 12MAY71 *****
COMMON /PRCNTL/ JJJGTG5,JJGRP,JJJCX
C      *****
C      PRCNTL *****
C      *****
C      TO 30NOV70 *****
COMMON /TD/ TD(31),TD(31)
EQUIVALENCE (TD,TD)
C      *****
C      TO *****
C      *****
C      COMMON /MAX/
1      *****
1      CLASS, VALERT, MASWTP, MBNDRY, MCHESG,
2      MDEPNLG, MGRP, MPAYLON, MFCOVR,
3      MDECVLG, MREF, MTLER, MTTOT,
4      MSPERT, MTANKS, MTARCLS, MTARCOL, MTHCPCX,
5      MTARERS, MTARGET, MTAKINO, MTARSEC, MTAKTET,
6      MTANTYP, MTARVAL, MTELWCM, MTOTRAS,
7      MTYPE, MVULN, MDEAPG, MZONEPT,
8      MZONES, MTARPL
C      *****
C      DATA (MTGT = 250)
C      DATA (MCOMP = 250)

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```

DATA (MMULT = 400)
IFROM=LSRTA
ITO=LSRTB
MAXSTENTARGET=1
LEAD=NTAR*5*(3.-SORTF(C.))
PRINT 5,NTAR,LEAD
5 FORMAT(14HIBEGIN IGT SORT//6H NTAR=,18/6H LEAD=,18)
2004 PRINT 2005,MAXICOMP
2005 FORMAT(10HMAXICOMP=,16)
IF (JJJTGTS.EQ.4MTGTS) 350,351
350 CONTINUE
2011 PRINT 2011
* 10MTGTSSTATUS,2X,4MTYPE,5X,10HTGTSTATUS,2X,
* 6MTGTNUM,7X,8MTGTVALUE,4X,5HMTINI)
351 CONTINUE
DO 10 I=1,MAXICOMP
10 LCPX(1)=C
DO 11 JN = 1,NTARVAL
11 JTG(JN)=0
WYN=0
MAX=MTGT
IPASS=1
IT=LTGT
MYINENT=8HSCRATCH
CALL SETREAD
50 CONTINUE
MAXCHNG=1 $ IREG=LEAD
LAST=0
DO 51 I=1,MTGT
51 ITR(2,I)=0
NEXTC=1
NEXTM=1
LENGTH=NTAR+1
DO 200 I=1,LENGTH
IF (I-MAXTS) 54,54,53
53 PRINT 530
530 FORMAT(23HMORE THAN 5000 TARGETS )
CALL ARGRT
54 CONTINUE
GO TO (60,70)IPASS
60 INO=LAST + LEAD
IF(INO.LE.NTAR)62,61
61 INO=INO-NTAR
62 IF(INO.NE.IREG)66,63
63 IF(I.EQ.1)66,64
64 IREG=IREG + 1
2006 PRINT 2007,I,IREG
2007 FORMAT(3H01=,16,10X,5HIREG=,16)
INO=IREG
66 LAST=INO
70 ITP=LTGT
CALL ROARRAY(1TD,31)
IF (ITD(2).EQ.8HXXXXXXXX) 701,71
C RESTURE COMMON /GROUP/
701 JSIZE=14*(NGROUP+10)

```

10675  
10800  
10900  
10900  
10900  
19000  
20000  
21000  
22000  
23000  
24000  
25000  
26000  
27000  
27500  
28000  
29000  
30000  
30000  
31000  
32000  
33000  
34000  
35000  
36000  
37000  
37500  
38000  
39000  
40000  
41000  
42000  
43000  
44000  
45000  
46000  
47000  
47100  
47200  
47300  
47400  
47500  
48000  
49000  
50000  
51000  
52000  
53000  
54000  
55000  
56000  
57000  
58000  
59000  
60000  
61000  
61100  
61200

```

CALL ROARRAY(IARP,JSIZE)
GO TO 200
71 CONTINUE
ICLASS=ITO(23)
ID(1)=ID(1)+VALFAC(ICLASS)
GO TO (75,80)IP=55
75 ITO(31)=IND
C
TEST FOR COMPLEX TARGET
80 CONTINUE
IF (ITO(30)) 802,2008,802
802 ITEMP(1)=ITO(31)
2008 PRINT 2010,ITEMP(1),ITO(3),ITO(5),ITO(6),ITO(1),ITO(2),
*
      ITO(7),ITO(24),ITO(30),
      ITO(31),TO(11),ITO(26)
2010 FORMAT (7H0TARGET,12X,16,15,A2,11,1X,A8,2110,2X,A8,2110,10X,
*
      F7.3,2X,15)
80 CONTINUE
IF (ITO(30)=2) 81,120,81
802 ICNO=ITO(7)
IF (JGT(ICNO), 804,803,804
803 JGT(ICNO)=ITO(31)
GO TO 2008
804 ITO(31)=JGT(ICNO)
GO TO 2008
81 ITEMP(1)=MIN
85 IF (ITEMP(1).GT.(ITEMP(1)+195.85
86 DO 90 J=1,29
90 ITEMP(1)=ITEMP(1)
IF (ITEMP(1).GE. .000000000001) 93,91
91 ITEMP(1)=.000000000001
93 CONTINUE
92 IF (ITO(7)=1) 92,200,92
K=NEXTM
NEXTM=NEXTM+ITO(7)
IF (NEXTM-LEMMULT)100,95
95 ITEMP(1)=0
PRINT 96
96 FORMAT(20H1MULTY TGT TABLE FULL)
MAXMAX=10
MAXCHNG=2
GO TO 201
100 CONTINUE
ITEMP(2)=K
L=8*(K-1)+1
M=ITO(7)
CALL ROARRAY(MLTCOMP(L),M)
GO TO 200
120 K=LCPI(ITO(7))
IF (K.GT.0)143,121
121 CONTINUE
GO TO 74
125 M=NCPI(ITO(7))
IF (M.GT.1)130,126
126 ITO(7)=1
      ITO(30)=0
GO TO 86

```

```

130 K=EXTC
    NEXTC=NEXTC*N
    IF(NEXTC.LE.MCOMP)140,131
131 PRINT 132
132 FORMAT(19H1COMPLEX TABLE FULL)
    I1AR(2,I1)=0
    MAX=MAX-I0
    MAXCHNG=2
    GO TO 201
140 I1AR(1,I1)=I1D(1)
    I1AR(2,I1)=I1D(2)
    I1AR(3,I1)=I1D(3)
    I1AR(4,I1)=I1D(4)
    I1AR(5,I1)=I1D(5)
    I1AR(6,I1)=I1D(6)
    I1AR(7,I1)=K
    I1AR(8,I1)=I0(K)
    I1AR(9,I1)=I1D(9)
    I1AR(23,I1)=I1D(23)
    I1AR(24,I1)=N
143 DO 144 J=1,29
144 ICPLX(J,K)=I1D(J)
    ICPLX(30,K)=I1D(7)
    IF (ICPLX(11,K).GE..000000000001) 145,145
145 CPLX(11,K)=.000000000001
146 CONTINUE
    CPLX(7,K)=1.
    LCPLX(I1D(7),K)=1
    IF(I1D(30),2,280,70,200
195 CONTINUE
    IF(I1D(7),-1) 197,200,197
197 IF(I1D(30)) 200,198,200
198 M=8-I1D(7)
    ITP=ITGT
    CALL RDARRAY(MLTX,M)
200 CONTINUE
201 ITP=ITGT
    CALL TERMTAPE
    MYIDENT=8HSCRATCH
    CALL SETREAD
    DO 202 I=1,MAXICOMP
202 LCPLX(I)=0
    PRINT 210,IPASS,MINMAX
210 FORMAT(5H0PASS,14,10X,9HMIN INOX=,16,10X,9HMAX TOTTS=,16)
    DO 1530 I=1,MTGT
    IF(I1AR(2,I).GT.0)1513,1511
1511 MIN=MIN + I-1
    GO TO 1540
1513 K=I1AR(7,I)
    IF(K-111515,1525,1520
    C
    COMPLEX HERE
1515 I1AR(7,I)=2
    GO TO(1516,1511)MAXCHNG
1516 CONTINUE
    CALL CALCOMP(I,-K)

```

115000  
116000  
117000  
118000  
119000  
120000  
121000  
122000  
123000  
124000  
125000  
125100  
125200  
125300  
125400  
126000  
127000  
128000  
128500  
129000  
130000  
131000  
132000  
133000  
134000  
135000  
136000  
137000  
138000  
139000  
140000  
141000  
142000  
143000  
144000  
145000  
146000  
147000  
148000  
149000  
150000  
151000  
152000  
153000  
154000  
155000  
156000  
158000  
159000  
160000  
161000  
162000  
163000  
164000  
165000  
166000  
167000

```

      L=(-K-1)*30+1
      M=ITAR(24,1)
      ITP=LTWIN
      DO 1517 I=1,M
        CALL WARRAY(ICPLX(L),29)
      1517 L=L+30
      GO TO 1525
C     MULTIPLE HERE
      1520 L=ITAR(2,1)
      ITPAR(2,1)=MLTCOMP(2,L)
      L=(L-1)*8+1
      N=K*8
      ITP=LTWIN
      CALL WARRAY(MLTCOMP(L),M)
C     WRITE TARGET
      1525 L=(I-1)*29+1
      ITPAR(7,1)=ITAR(7,I)
      ITP=LTWIN
      CALL WARRAY(ITAR(L),29)
      1530 CONTINUE
      MIN=MIN*MTGT
      1540 IF (MIN*GE*MTAR) 1600,1541
      1541 CONTINUE
      GO TO (1542,50)MAXCHNG
      1542 CONTINUE
C
      1600 IK=1
      IF (JJCPX.NE.7HCOMPLEX) GO TO 1669
      REVERSE LSHTA AND LSHTB
      INTMP=IFROM
      IFROM=ITO
      ITO=INTMP
      IF (IPASS-1) 1585,1585,1580
      1580 ITP=IFROM
      WYIDENT=HMSCRATCH
      CALL SETREAD
      CALL WARRAY(LOOK,30)
      1585 ITP=ITO
      WYIDENT=HMSCRATCH
      CALL SETWRITE
      ON 1605 IZ=1,125
      ICNUM(I2)=0
      ICPT(I2)=0
      ICNDX(I2)=0
      1605 CONTINUE
      ICNUM(1)=ICPLX(30,1)
      ICPT(1)=1
      DO 1620 JJ=2,7HCOMP
      IF (ICPLX(30,JJ)=ICNUM(IK)) 1610,1620,1610
      1610 IK=IK+1
      ICNUM(IK)=ICPLX(30,JJ)
      ICPT(IK)=JJ
      1620 CONTINUE
      CALL ORDER(ICNUM,ICNDX,IK)
      DO 1650 NN=1,IC
      IXX=ICNDX(NN)

```

```

168000
169000
170000
171000
172000
173000
174000
175000
176000
177000
178000
179000
180000
181000
182000
183000
184000
185000
186000
187000
188000
189000
190000
191000
192000
192010
192020
192030
192040
192050
192060
192070
192080
192090
192100
192110
192120
192130
192140
192150
192160
192170
192180
192190
192200
192210
192220
192230
192240
192250
192260
192270
192280
192290
192300
192310

```

```

IX=ICPNT(IXX)
IF (ICNUM(IXX)) 1625,1650,1625
1625 IMOLD=ICPLX(30,IX)
1627 IF (IPASS=1) 1530,1632,1630
C MERGE ITEM -ITH LIST OF UNIT IP400. WRITE TO UNIT JTC
1630 IF (IMOLD=LOOK(30))1632,1633,1634
1632 ITP=ITO
LOC=(IX-1)*30+1
CALL WHARRAY(ICPLX(ILOC),30)
GO TO 1636
1634 ITP=ITO
CALL WHARRAY (LOOK,30)
ITP=IFROM
CALL RDARRAY(LOOK,30)
GO TO 1639
1636 CONTINUE
ICPLX(30,IX)=0
IX=IX+1
IF (IX=COMP) 1637,1637,1650
1637 IF (ICPLX(30,IX)=0) 1650,1627,1650
1650 CONTINUE
1660 IF (IPASS=1)1660,1666,1660
1660 IF (LOOK(30)=999999) 1663,1668,1663
1663 ITP=ITO
CALL WHARRAY(LOOK,30)
ITP=IFROM
CALL RDARRAY(LOOK,30)
GO TO 1660
1664 LOOK(30)=999999
1668 ITP=ITO
CALL WHARRAY(LOOK,30)
CALL TERMTAPE
IF (IPASS.EQ.1) GO TO 1669
ITP=IFROM
CALL TERMTAPE
1669 CONTINUE
IF (MIN.GE.MTAX) GO TO 1545
EVO OF PRINT SORT
C
IPASS=IPASS + 1
DO 1654 161.375
ICNUM(I)=0
1655 CONTINUE
GO TO 50
1645 CONTINUE
ITP=ITYIN
CALL TERMTAPE
ITP=ITWIN
IT40PD=HHZZZZZZZZ
CALL WHORO
ITP=ITGT C CALL TERMTAPE
C IF (JJCPX.NE.THCMPLEX) GO TO 1680
ITP=ITO
MYICENT=8HSCRATCH
CALL SETREAU
IMOLD=0

```

```

PRINT 151
151 FORMAT (2H0, R=ICOMPLEX, 2X, 7HINDEANO, 2X, 7HTGTNAME, 5X,
1 7HTASK-ST, 7X, 5HDESIG, 6X, 5HCLASS, 6X, 6HTYPE, 6X, 3MLAT, 7X, 6HLONG/)
1570 CALL ROADARRAY(L'OKK, 30)
IF (LOOK(30) - 999999) 1675, 1640, 1675
1675 IF (LOOK(30).NE.IMOLD) NC=IM6
IMOLD=LOOK(30)
PRINT 1635, MC, LOOK(30), LOOK(2), LOOK(1), LOOK(4), LOOK(3),
• LOOK(22), LOOK(24), LOOK(8), LOOK(9)
1635 FORMAT (A1, 1X, 16, 5X, 16, 2X, 48, 6X, 48, 5X, 48, 3X, 48, 2X, 48, 2X,
1 F7.3, 3X, F8.3)
MC=IM
GO TO 1670
1640 CALL TERTAPE
1680 CONTINUE
PRINT 1546
1546 FORMAT(18H0TGT SORT COMPLETED /)
END

```

201140  
201160  
201180  
201200  
201220  
201240  
201260  
201280  
201300  
201320  
201340  
201360  
201380  
201400  
202000  
203000  
204000  
205000

IDENT TGTSORT

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

TGTSORT	02133
IFTPRNT	00277
IIP	00012
TDOWN	00001
MYIDENT	00001
TAPES	00007
CLASNAME	00074
DPOOL	11610
LCPA	04704
1	04705
GROUP	05117
12	34636
DIRECTRY	11654
MLIX	00110
PRCNTL	00003
TD	00037
MAX	00047

EXTERNAL SYMBOLS

Q1004100
Q1010100
THEND.
0800ICT.
SETHEAD
ABORT
HOARWAY
TERMTAPE
CALCOMP
WRARWAY
SETWHITE
ORDER
WR=040
SORTF
STH.
QNSINGL.







## 5.4TS

## TATSORT

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## C00000 ITD

01157	01175	01176	01221	01221	01225	01226	01251	01252	01262	01265
00516	00517	00517	00532	00532	00544	00544	00544	00547	00547	00556
00556	00560	00561	00562	00562	00564	00565	00564	00567	00570	00572
00574	00574	00600	00600	00605	00605	00613	00613	00627	00627	00637
00637	00652	00652	00660	00661	00712	00713	00722	00722	00734	00734
00744	00745	00746	00772	00772	00775	00775	00777	00777	01001	01001
01003	01003	01005	01005	01015	01015	01026	01026	01031	01032	01045
01044	01052	01053	01056	01056	01061	01061	01064	01065		

## C00000 ITEND

00551	00551	00616	00614	01425	01440	01477	01514	01571		
00304	01312	01314	01330	01067	01070	01101	01101	01200	01201	01235
01404	00405	00513	00513	01320	01331	01331	01426	01426	01441	01441
01234	01260	01260	01320	01505	01505	01515	01515	01527	01527	01550
01444	01444	01500	01500	01562	01562	01572				
01540	01554	01554	01562							
01556	01556									

## C00000 ITD

01202	01214	01450	01457	01772						
01407	01427									
01604	01405									
01337	01337									

## C00000 ITW000

00663	00664									
01307										
01524										
01534										
01534										
01567										
01617										
01617										
00576	00731									
00630										
00742										
00743										
00755										
00754										
00732										
01034										
01036										
01142										
01143										
01154										
01161										
01154										
01153										
01146										
01274										
01300										

P01303	.1542	01302				
P01547	.1545	01535				
P01317	.1580					
P01330	.1585	01315	01316			
P01303	.1600	01276	01277			
P01345	.1605					
P01363	.1610	01362				
P01372	.1620	01362				
P01413	.1625	01412				
P01416	.1627	01466				
P01421	.1630	01420	01452			
P01425	.1632	01417	01423			
P01440	.1634	01423	01424			
P01453	.1635	01437				
P01463	.1637	01461	01462			
P01647	.1640	01614				
P01467	.1650	01412	01462	01466		
P01545	.1655					
P01474	.1660	01473	01511			
P01477	.1663	01476				
P01512	.1666	01473				
P01514	.1668	01476				
P01532	.1669	01310	01525			
P01607	.1670	01646				
P01615	.1675	01614				
P01451	.1680	01570				
P01056	.195	00623	00626			
P01061	.197	01060				
P01064	.194	01062				
P01074	.200	00531	00453	00721	01054	01055
P00334	.2004					
P00475	.2006					
P00547	.2008	00545	00610	00614		
P00552	.2009					
P01100	.201	00701	00771			
P01117	.202					
P00347	.350					
P00355	.351					
P00412	.50	00346				
P00423	.51	01302	01546			
P00442	.53					
P00452	.54	00440	00441			
P00455	.60	00454				
P00462	.61	00461				
P00465	.62	00460	00461			
P00470	.63	00466				
P00473	.64	00471				
P00510	.66	00467	00472			
P00512	.70	00454	00733	01054		
P00522	.701					
P00532	.71	00521				
P00543	.75	00542				
P00575	.80	00542				
P00500	.802	00546				



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P02114	LAST	01261	01762	00511	00725	01051	01052	01117	01120				
C00000	LCPX	00414	00455	00511	00725	01051	01052	01117	01120				
P02117	LEAD	00364	00365	00365	00414	00455							
P02120	LENGTH	00321	00330	00414	00455								
C00310	LINKR	00433	01076										
C01546	LINKC												
C01762	LINKD												
C02405	LINKL												
C05027	LINKR												
C11300	LOOK												
C00005	LSRTA	01327	01422	01422	01444	01451	01474	01474	01503	01510	01513	01513	
C00006	LSRTA	01520	01611	01612	01612	01615	01615	01622	01622	01631	01631	01633	
C00004	LTOB	01634	01635	01636	01637	01640	01641	01642					
C00003	LTTGP	00303	00303										
C00002	LTTGT	00305	00305										
C00001	LTTIN	00403	00404	00512	00512	01066	01067	01100	01100	01541	01541	01561	
C00000	LTTIN	01257	01257	01547	01547								
C00547	LTYPE	01177	01290	01234	01235	01553	01553						
P02121	M	00714	00720	01066	01073	01177	01215	01234	01243				
C00000	MAIRNEZ												
C00001	MAIRNEZ												
C00002	MASTVP												
P02122	MAX	00402	00625	00676	00677	00767	00770	01131					
P02123	MAXCANG	00413	00700	00771	01160	01300							
C00000	MAXICOMP	00340	00340	00360	00360	01113	01113						
P02124	MAXIST	01311	00440										
C00003	MBNDPY												
P02125	MC	01621	01630	01640									
C00004	MCCEPBN												
C00005	MCLASS												
C00006	MCTPVS												
P00004	MCOMP	00754	01354	01461									
C00007	MCOMP												
C00010	MDEPNLG												
C00012	MDEPNLG												
C00011	MDEPN												
C00013	MGROUP	00522	00522	01130	01144	01146	01272	01273	01274	01532			
P02126	MIN	00401	00617	01130	01144	01146	01272	01273	01274	01532			
C00000	MLTCOMP	00715	00720	01224	01225	01237	01243						
C00037	MLTX	01073											
P00005	MMULT	00663											
C00014	MPAYLOD												
C00015	MRECOVER												
C00016	MRECVLG												
C00017	MREF												
C00020	MRTLEG												
C00021	MRTPT												
C00022	MSPERT												
C00023	MTANKS												
C00024	MTARCLS												
C00025	MTARCOL												



CODE	DESCRIPTION	00312	00323	00335	00350	00443	00476	00553	00671	00757	01123	01602	01625
X00014	SORTF												
X00017	SH.												
C00000	TAR												
C00000	TO												
X00010	TERMTAPE												
P00277	TGT SORT												
X00003	THEND.												
C03547	TIMESTRT												
C03225	TMSA												
P00367	TS00001.												
P00400	TS00002.												
P00426	TS00003.												
P01076	TS00004.												
P01122	TS00007.												
P01270	TS00010.												
P01215	TS00011.												
P01374	TS00013.												
P01470	TS00014.												
C00000	TWORD												
C10516	TYPE NAME												
P01677	UP00000.												
P01713	UP00002.												
P01727	UP00005.												
P01737	UP00007.												
P01750	UP00012.												
P01761	UP00014.												
P01771	UP00016.												
C00055	VALFAC												
X00012	WARRAY												
X00015	WWORD												
P00364	WS00001.												
P00375	WS00002.												
P00423	WS00003.												
P00437	WS00004.												
P00637	WS00005.												
P01026	WS00006.												
P01117	WS00007.												
P01140	WS00010.												
P01204	WS00011.												
P01341	WS00012.												
P01357	WS00013.												
P01402	WS00014.												
P01543	WS00015.												
C00620	ZONEB												
C01604	ZONEC												
	00613 SYMBOLS												



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```

CSUBR      FUNCTION VLRAIP(YIELD,VN,MOR,FN)
CUSE       VLRAIP 15MAY71 *****
C          DPOL 18JAN71 *****
C
C          THIS BLOCK COMBINES THOSE KNOWN IN OTHER PROGRAMS AS /ROUND/,
C          /CHECK/, /CURR/, /DEPN/, /KORTY/, /LEG/, /NAVALX/, /POL-T/,
C          /RADATA/, /MECGV/, /HEF/, AND /TYPENAME/.
C          IT IS REUSED DURING TGT SORT AS ITEM,
C          AND DURING GRPSORT AS ITANK AND JTANK
C
COMMON /DPOL/ IB(200),LINKS(200),ZONES(200),NEATZR(200),
* ICHKFLG(20),ICHECK(20),IC(30),LINKC(30),ZONEC(30),ITY(30),
* IN(50),LINKD(50),KORSTY(5),MLOAT(5),DEFK(5),ATTRS(5),
* ATTRC(5),IL(200),LINKL(200),ATRL(200),IMAS(10,10),
* DBLAS(10,10),NTIMES(10),TIMESTMT(200),NALLOW(200),
* RLAT(200),MLONG(200),RLAT(200),MLONG(200),LINKR(200),
* RECLAT(200),RECLON(200),THECPCTY(200),INDMEC(200),
* RPLAT(200),RFLONG(200),CUMNO(15),RTYPES(15),INDCLAS(15),
* INDREG(250),TYPENAME(250),NTYPS,CHK(250),
* PG(12),PA(12),QG(6),QA(8),
* ITEMP(5000),ITANK(12,200),JTANK(12,200)
C
C TYPE INTEGER ZONES,ZONEC
C TYPE INTEGER TYPENAME,CHK
C TYPE INTEGER CUMNO
C EQUIVALENCE (IT,ITEMP,ITANK)
C EQUIVALENCE (ITEMP(2401),JTANK)
CEND DPOL *****
100 FORMAT (F2.0,A1,F1.0)
CRYSTILOC=33333
IF(XK) I,12
1 DELTA=0
2 IF (LETTER.EQ.8HQ) 19,9
3 A=.027144 * XK/CRY
4 B=.1 * XK
5 IF (LETTER.EQ.8HQ) 15,5
6 P CASE
7 X=2.
8 Z=(X+X*B)/(2.*X-A)
9 IF (ABSF(X-Z) .LT. .0005) 8,7
10 X=Z
11 Z=Z*(1.)/(2.*1.)
12 DELTA=Z*(1.7991 + 9.1979 * Z * RZ) * RZ
13 AVN=DELTA * VN
14 ISM1 SFM=6. 580 TO 23
15 Q CASE
16 X=1.
17 Z=(2.*X+X*B)/(3.*X-A)
18 IF (ABSF(X-Z) .LT. .0003) 18,17
19 X=Z
20 Z=Z*(1.)/(2.*1.)
21 DELTA=Z*(16.3493 * 6.8984 * Z * RZ) * RZ
22 AVN=DELTA * VN
23 ISM2 SFM=3.
24 IF (MOR) 24,24,25
25 JS=1 580 TO 26

```

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```

25 JSW=2
26 DO 27 I=2,12
   IF (AVN .LE. 5.0*(I-1)) 28,27
27 CONTINUE
   I=12
28 IUP=1  S1L=1-1
   DV=AVN-5.0*(I-1)
   GO TO (29,32),ISW
29 GO TO (30,31),JSW
30 Y=PG(IL)  SZ=PG(IUP)  $60 TO 35
31 Y=PA(IL)  SZ=PA(IUP)  $60 TO 35
32 GO TO (33,34),JSW
33 Y=QG(IL)  SZ=QG(IUP)  $60 TO 35
34 Y=QA(IL)  SZ=QA(IUP)
35 Y=Y-SDV
   VLKADP=EXP(Y)*CRY
   END

```

32000  
33000  
34000  
35000  
36000  
37000  
38000  
39000  
40000  
41000  
42000  
43000  
44000  
45000  
46000  
47000  
48000  
49000

504TS VLRADP

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

VLRADP

DPOOL

EXTERNAL SYMBOLS

THEND.  
G2Q07111  
ORDDICT.  
EXAF  
DEC.  
QNSINGL.

IDENT

00405

00012

11610

VLRADP

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ED

0

PAGE NO.

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ED 0

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P00362 A	00044	00060	00110				
C02715 ATRL							
C02070 ATRC							
C02063 ATTR							
P00363 AVN	00103	00140	00162	00177			
P00364 H	00050	00056	00113				
P00265 BEGIN.	00316	00325	00331				
C04367 BLAT							
C04677 RLONG							
C10046 RTYPES							
C11111 CHK							
P00264 CNVRT.	00022	00024	00025				
P00003 CNFMT.	00031						
P00365 CRV	00035	00045	00260				
C10047 CUMNO							
C03371 DBLASH	00017						
X00005 DEC.							
C02056 DEFR							
P00366 DELTA	00041	00101	00102	00136	00137		
P00001 DICT.	00014	00020	00030	00032	00257	00270	00271
P00367 DV	00200	00254					
P00317 ENDING.	00015	00261	00265	00266	00246	00267	00267
P00000 EXIT.	00323						
X00004 EXPF	00254						
P00003 FM	00106	00143					
P00003 FORMAT.	00042	00051					
P00021 FP00001.	00303						
P00033 FP00002.	00277	00300					
P00195 FP00003.	00312	00313					
P00142 FP00004.	00314	00315					
P00144 FP00005.	00306	00307					
P00334 GETPL.	00272	00301	00310				
P00324 GETPU.	00275	00304	00330				
P00031 GG00000.	00014						
C02041 MILOAT							
P00003 M09	00144						
P00370 I	00154	00155	00164	00166	00167	00170	
C00000 Ia							
C01510 IC							
C01440 ICHKFLG							
C01464 ICHKRUM							
C01700 IN							
P00371 IGOTO.	00201	00204	00227				
C02075 IL	00171	00172	00206	00204	00216	00231	00241 00241
C10124 INDEC							
C10105 INOCLAS							
C07447 INDEC							
P00265 INITIAL.	00015						
C07157 IRECPCTY							
P00372 IS4	00104	00141	00200				
C00000 ITANK							
C00000 ITEM6							
C01642 ITY							
P00373 IUP	00170	00213	00223	00236	00246		

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P00040 .1	00034	00037				
P00107 .15	00052					
P00111 .16	00126					
P00125 .17	00123	-00124				
P00127 .18	00124					
P00137 .19	00043					
P00044 .2	00037					
P00144 .23	00106					
P00147 .24	00145					
P00151 .25	00144					
P00153 .26	00150					
P00164 .27	00163					
P00167 .28	00162					
P00203 .29	00202					
P00206 .30	00205					
P00216 .31	00205					
P00224 .32	00202					
P00231 .33	00230					
P00241 .34	00230					
P00251 .35	00215					
P00053 .5	00052	00225	00240			
P00055 .6	00071					
P00070 .7	00064					
P00072 .8	00067					
P00102 .9	00043					
P00336 .ERASER.	00057	00061	00061	00075	00075	00116
	00117	00117	00121	00133	00133	00174
	00021					
P00010 .100	00042					
P00011 .10000	00051					
P00011 .100001	00051					
P00335 .NSTIFF.	00210	00220	00220	00243	00243	
P00374 JS*	00150	00152	00203			
C00540 JIANK	00025	00042	00051			
C02044 KORSTY						
P00375 LETTER						
C00310 LINKR						
C01546 LINKC						
C01762 LINKR						
C02405 LINKL						
C05027 LINKR						
C04057 YALLOW						
C01130 NEXTIP						
C03535 NTIPES						
C11110 NTIPS						
P00003 MNW	00021	00221	00223	00224	00224	
C11517 PA	00221					
P00301 PF00002.	00276					
P00304 PF00003.	00302					
P00310 PF00004.	00305					
P00316 PF00005.	00311					
C11503 PG	00211	00211	00213	00214	00214	
X00002 02007111	00031					
X00003 02001CT.	00000					
C11543 QA	00244	00244	00246	00247	00247	

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C11533	QG	00234	00234	00236	00237				
X00006	JMSINGL.	00263							
C04337	WECLAT								
C05647	WECLON								
C07777	WECLAT								
C10023	WEFLONG								
C05207	RLAT								
C05517	RLONG								
P00376	RZ	00076	00077	00100	00101	00133	00134	00135	00136
P00377	S	00253	00254						
X00301	TWEND.	00027							
C03547	TWESTRT								
C03225	THASH								
C10516	TYPENAME								
P00262	VALUE.								
P00012	VLRAND	00260	00322						
P00400	VN	00012	00103	00140					
P00155	WS000001.	00023							
P00401	X	00105	00055	00056	00060	00063	00071	00110	00112
		00054	00120	00126					00113
P00402	XK	00115	00120	00126					00115
P00403	Y	00206	00036	00045	00047				
P00003	YIELD	00212	00222	00235	00245	00251	00254	00255	
P00404	Z	00033							
		00062	00063	00070	00072	00074	00120	00121	00125
		00225	00240	00250	00252				00127
									00131
									00215
C00620	ZONER								
C01604	ZONFC								

00204 SYMBOLS

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FTNS.5

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```
CSUPH  SUBROUTINE WRITER(N1,N2,N3,N4,N5,NUMB)
        WRITER 11NOV70 *****
        DIMENSION NAK(6) *****
        NAK(1)=N1 *****
        NAK(2)=N2 *****
        NAK(3)=N3 *****
        NAK(4)=N4 *****
        NAK(5)=N5 *****
        CALL WRARRAY(NAK,NUMB)
        END
```

1000  
33000  
2000  
3000  
4000  
5000  
6000  
7000  
8000  
9000

5.4TS WRITER

PROGRAM LENGTH  
ENTRY POINTS  
EXTERNAL SYMBOLS

WRITER  
ORNDICT.  
WPAHAY

INENT

00107  
00010

WRITER

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5.4TS WRITER

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P00032 BEGIN.  
P00001 DICT.  
P00072 ENDING.  
P00000 EXIT.  
P00014 FP00001.  
P00014 FP00002.  
P00020 FP00003.  
P00022 FP00004.  
P00024 FP00005.  
P00030 FP00006.  
P00106 GETPL.  
P00076 GETPU.  
P00032 INITIAL.  
P00010 N1  
P00010 N2  
P00010 N3  
P00010 N4  
P00010 N5  
P00003 NAR  
P00010 NUMA  
P00044 PF00002.  
P00052 PF00003.  
P00056 PF00004.  
P00062 PF00005.  
P00064 PF00006.  
P00071 PF00007.  
X00001 WBOUICI.  
X00002 WARRAY  
P00010 WRITER  
00035 SYMBOLS

00071  
00012  
00013  
00075  
00044  
00050  
00054  
00060  
00064  
00070  
00037  
00042  
00013  
00014  
00016  
00020  
00022  
00024  
00015  
00030  
00043  
00047  
00053  
00057  
00063  
00067  
00000  
00026  
00010  
00077  
00027  
00031  
00045  
00051  
00055  
00061  
00065  
00046  
00052  
00056  
00062  
00066  
00102  
00021  
00023  
00025  
00030  
00011

00036  
00033

00034

00034

00033

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SUBROUTINE NMULT
  CSURP  WRMULT  30NOV70
  CUSE   MLTX    30NOV70
          COMMON /MLTX/ -ULT(31),MLTX(4,5),FMULT(8,5),NMULT
          EQUIVALENCE(MULT,FMULT)
  CE=0   MLTX *****
          NMULT(7)=NMULT
          CALL WARRAY(-ULT,31)
          IF(NMULT.EQ.1) 5,3
  3 NMULT=N
          CALL WARRAY(MLTX,N)
  5 NMULT=N
          RETURN
          END

```

1000  
32000  
2000  
1000  
2000  
2000  
3000  
4000  
5000  
6000  
7000  
8000  
9000  
10000

SATS

ARMULT

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

ARMULT

PLTX

EXTERNAL SYMBOLS

OBJECT.  
MAPRAY

IDENT

00033

00003

00110

ARMULT

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EO

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5.ATS

ARMULT

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P00024 BEGIN.  
P00001 OICI.  
P00027 ENGING.  
P00000 EXIT.  
C00037 FMTX  
P00024 INITIAL.  
P00014 .3  
P00024 .5  
C00037 MUX  
C00000 MULT  
P00032 N  
C00107 MMULT  
X00001 GROUNDICT.  
X00002 WARMAY  
P00003 ARMULT  
00017 SYMBOLS

00026

00005

0000A

00027

00006

00015

00015

00023

00010

00020

00007

00000

00011

00003

00022

00012

00025

00013

00023

00007

00004

00021

00014

00016

00016

00024

00025

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PROGRAM PHEPALOC
CSUBR PREPALOC 7JUN71 *****
C DATA PRECOMPUTATION PROGRAM FOR THE PLAN GENERATION SUBSYSTEM
CUSE WPNDATA 1JUN71 *****
COMMON/WPNDATA/RANGE(R0),CEP(R0),SPEED(R0),ALERTDLY(R0),
1 NALRTDLY(R0),RANGEDEC(R0),ICLASS(R0),RANGEREFF(R0),
2 REL(R0),IHECMODE(R0),IPENMODE(R0),ISINTYPE(R0),
3 FUNCTION(R0),NWPNS(200),NVEHGRP(200),MLAT(200),
4 WLONG(200),IREG(200),ITYPE(200),IALERT(200),SRL(200),
5 IREFUEL(200),YIELN(200),REFTIME(200),DISTAC(200,30),
6 MTYPE,MGRGRP,MDESREQ
C DIMENSION IPAY(200),MYFIXD(5000),MYDEXST(5000),DUMAR(10000)
C TYPE REAL NALRTDLY
C TYPE INTEGER FUNCTION
C EQUIVALENCE (IPAY,IREFUEL),(MG,MGRGRP)
C EQUIVALENCE (MYFIXD,RANGE,DUMAR),(MYDEXST,DUMAR(5001))
CEND WPNDATA *****
C MGROUP=200 MAXIMUM NUMBER OF WEAPON GROUPS
C NWPNS TOTAL NUMBER OF WEAPONS IN ENTIRE GROUP
C NVEHGRP TOTAL NUMBER VEHICLES IN GROUP
C MLAT AVERAGED LATITUDE
C WLONG AVERAGED LONGITUDE
C IREG REGIONAL INDEX
C ITYPE TYPE INDEX
C IALERT INDEX OF ALERT STATUS(ZERO FOR NONALERT,1 FOR ALERT)
C SRL PROBABILITY OF SURVIVAL BEFORE LAUNCH
C IREFUEL INDEX OF REFUELING AREA ASSIGNED TO GROUP(ZERO IF NONE
C ASSIGNED -1 FOR BUDDY REFUELING)
C IPAY MISSILE PAYLOAD INDEX
C YIELD YIELD OF BOMB,AVERAGED
C REFTIME TIME OF REFUELING OF EACH GROUP
C DISTAC DISTANCE FROM EACH GROUP CENTROID TO EACH PENETRATION CORR
C (FIRST 200 WORDS OUTPUT ON BASFILE AS FRACTION OF
C WEAPONS IN EACH GROUP THAT ARE ASKS.)
C *****
C MTYPE = 80 MAXIMUM NUMBER OF WEAPON TYPES
C RANGE WEAPON RANGE(NAUTICAL MILES)
C CEP WEAPON CEP (AVERAGED)
C SPEED WEAPON SPEED (KNOTS)
C ALERTDLY WEAPON DELAY WHEN ON ALERT STATUS
C NALRTDLY WEAPON DELAY WHEN NOT ON ALERT STATUS
C RANGEDEC WEAPON RANGE DECREMENT FOR LOW ALTITUDE FLIGHT
C ICLASS WEAPON CLASS INDEX (1 FOR MISSILES, 2 FOR BOMBERS)
C RANGEREFF WEAPON RANGE WITH REFUELING (N. MILES)
C REL WEAPON RELIABILITY
C *RECMODE NONZERO IF RECOVERY REQUIRED
C IPENMODE NONZERO IF PENETRATION CORRIDOR
C ISINTYPE HOLLERITH TYPE NAME
C FUNCTION WEAPON FUNCTION CODE
C *****

```

```

C C MYFIXD TARGET IDENTIFIERS FOR FIXED WEAPON ASSIGNMENT REQUESTS
C C MYDEXST INDEX TO INFIX ARRAY IN /CHANGES/ TO START OF FIXED
C C ASSIGNMENT DATA FOR THIS IDENTIFIER
C C MDESREQ MAXIMUM NUMBER OF TARGET IDENTIFIERS FOR FIXED ASSIGNMENTS
C C
C C WPNREG 1JUN71 *****
C C COMMON/WPNREG/CCREL(20),MREG
C C WPNREG *****
C C MREG=20 MAXIMUM NUMBER OF REGIONS
C C CCREL COMMAND AND CONTROL RELIABILITY
C C *****
C C
C C WAKHEAD 1JUN71 *****
C C COMMON/WAKHEAD/YLD(50),POUD(50),FFRAC(50),NMMDTYPE
C C WAKHEAD *****
C C NMMDTYPE = 50 MAXIMUM NUMBER OF WARHEAD TYPES
C C YLD ACTUAL YIELD
C C PRUD DUD PROBABILITY
C C FFRAC FISSION FRACTION
C C PLANTYPE 1JUN71 *****
C C COMMON/PLANTYPE/INITSTRK,CORMSL,CORBOH3
C C PLANTYPE *****
C C
C C INITSTRK STRIKE INDICATOR ONE FOR FIRST STRIKE
C C CORMSL FRACTION OF MISSILE FLIGHT COMPLETED AT TIME ZERO
C C CORBOH3 NUMBER OF NAUTICAL MILES FROM CORRIDOR ENTRY THAT
C C BOMBS REACH AT TIME ZERO
C C
C C DPENREF 1JUN71 *****
C C COMMON/DPENREF/DPLINK(50),DPLAT(50),DPLONG(50),RFLAT(20),
C C RFLONG(20),MOPEN,MREF
C C TYPE INTEGER DPLINK
C C DPENREF *****
C C MOPEN = 50 MAXIMUM NUMBER OF DEPENETRATION CORRIDORS
C C MREF=20 MAXIMUM NUMBER OF REFUELING AREAS
C C DPLINK DEPENETRATION CORRIDOR LINK
C C DPLAT DEPENETRATION CORRIDOR LATITUDE
C C DPLONG DEPENETRATION CORRIDOR LONGITUDE
C C RFLAT REFUELING AREA LATITUDE
C C RFLONG REFUELING AREA LONGITUDE
C C *****
C C
C C PAYLOAD 1JUN71 *****
C C COMMON/PAYLOAD/NOROMR1(40),IWM01(40),NOROMR2(40),IWM02(40)
C C 1,IRASHM(40),IRASH(40),NCM(40),NDECOYS(40),WADECOYS(40),IWMIR(40)
C C 2,PAYLOAD
C C EQUIVALENCE (MP, MPAYLOAD)
C C PAYLOAD *****
C C MPAYLOAD = 40 MAX. NUMBER OF PAYLOAD TYPES
C C NMOMR1 NUMBER BOMBS OF 80MR TYPE1
C C IWM01 WARHEAD TYPE INDEX FOR TYPE 1
C C NOROMR2 DITTO FOR 80MR2

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C      INHD2 DITTO FOR ROMH2
C      NASM NUMBER OF ASMS
C      IASM ASM TABLE INDEX
C      NCM NUMBER OF COUNTER MEASURES
C      NDECOYS NUMBER OF DECOYS
C      NADCOYS NUMBER AREA DECOYS
C      IMIRV MIRV SYSTEM IDENTIFICATION NUMBER
C*****
C      CUSE      ASMTABLE IJUM71 *****
C      COMMON/ASMTABLE/INHDAS*(20),RANGEAS*(20),RELAS*(20)
C      1,CEPAS*(20),SPEEDAS*(20),MASMTYPE
C      EQUIVALNCE (NASM, MASMTYPE)
C      ASMTABLE *****
C      INHDASH WARHEAD TYPE INDEX
C      MASHTYPE = 20 MAX. NO. OF ASM TYPES
C      RANGEAS* RANGE (N, MI.)
C      RELAS* RELIABILITY OF ASM
C      CEPAS* CEP
C      SPEEDAS* SPEED
C*****
C      CUSE      CORRCHAR IJUM71 *****
C      COMMON /CORRCHAR/ PCLAT(30), PCLONG(30), PRATT(30,3), DISTDEF(30,3),
C      1 ZPLONG(30), ENTLAT(30), ENTLONG(30), CRLENGTH(30), KORSTYLE(30),
C      2 ATRCORR(30), ATRSUPP(30), HILOATTR(30), DEFRANGE(30),
C      3 NPROCDEF(30), DEFDIST(30,3), ATTNPNE(30,3), NOATA, LMAX
C
C      TYPE INTEGER PCZONE
C      TYPE REAL KORSTYLE
C      DIMENSION DISTDEF(30),PRATT(30,3),DISTDEF(30,3)
C      EQUIVALNCE (DEFDIST,DISTDEF), (PRATT,ATTNPNE)
C      EQUIVALENCE (CRLENGTH, DISTDEF)
C      CORRCHAR *****
C      PCLAT LATITUDE OF CORRIDOR POINT
C      PCLONG LONGITUDE OF CORRIDOR POINT
C      PCZONE DEFENSE ZONE OF CORRIDOR ORIGIN
C      RPLAT LATITUDE ZONE OF CORRIDOR ORIGIN
C      RPLONG LONGITUDE ZONE OF CORRIDOR ORIGIN
C      ENTLAT LATITUDE ZONE OF CORRIDOR ENTRY
C      ENTLONG LONGITUDE ZONE OF CORRIDOR ENTRY
C      CRLENGTH DISTANCE FROM CORRIDOR ENTRY TO ORIGIN
C      KORSTYLE POWER OF Y VS X IN FORMULA FOR CURVILINEAR COORDINATES
C      ATRCORR HIGH ALTITUDE ATTENTION PER N.M.I. UNSUPPRESSED
C      ATRSUPP HIGH ALTITUDE ATTENTION PER N.M.I. SUPPRESSED
C      HILOATTR RATIO LOW TO HIGH ALTITUDE ATTENTION (LESS THAN 1)
C      DEFRANGE CHARACTERISTIC RANGE OF CORRIDOR DEFENSE
C      NPROCDEF NUMBER OF LATTITUDE SECTIONS IN CORRIDOR
C      DEFDIST DISTANCE OF EACH ATTENTION SECTION
C      ATTNPNE ATTENTION IN THIS ATTENTION SECTION
C      NOATA NUMBER OF PENETRATION CORRIDORS
C      LMAX MAXIMUM NUMBER OF PRECORRIDOR LEGS (3)
C*****

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C CUSE      TAPES      1JUN71      .....
C C      COMMON/FILES/ TGFIL(2),RASFILE(2),MSLTIME(2),
1      ALOC(2),TMPALOC(2),ALOCGRP(2),STRKFL(2),
2      EVENTAPE,PLANTAPE
C C      TYPE INTEGER TGFIL, RASFILE, MSLTIME, ALOC(2),
1      TMPALOC, ALOCGRP, STRKFL, EVENTAPE, PLANTAPE
C C      COMMON/NOVFILE/ WINFILE, TINFILE, POSTDATA, FIXFILE, TMP(2),
1      , TMP(2)
C C      TYPE INTEGER WINFILE, TINFILE, POSTDATA, FIXFILE, TMP(2), TMP(2)
C C      TAPES      .....
C CEND
C C      DATA (TGFIL(1) = -2), (RASFILE(1) = -8), (MSLTIME(1) = -7),
1      (ALOC(1) = -4), (TMPALOC(1) = -3), (ALOCGRP(1) = -2),
2      (STRKFL(1) = -5), (EVENTAPE=10), (PLANTAPE = 3)
C C      DATA(WINFILE = -9), (TINFILE=-10), (POSTDATA=-7),
1      (FIXFILE =-6), (TMP(1) = -5), (TMP(2) = -9)
C CUSE      MASTER      1JUN71      .....
C C      COMMON/MASTER/INDATE,IDENTNO,ISIDE,NRPT,NCORR,NOPEN,NRECOVER
1,NREF,NRNDRY,NREG,NTYPE,NGROUP,NTOTBASE,NP2LOAD,NASHTYPE,NHNDTYPE
2,NTANKBAS,NCOMPLEX,NCLASS,NALERT,NTGTS,NCORTYPE,NCNTRY
EQUIVALENCE (NGROUP, N0), (NALERT, N0THER);
C C      MASTER      .....
C C      INDATE MOLLERITH DATE
C C      IDENTNO MOLLERITH TIME OF DAY FOR PROGRAM PLANSET
C C      ISIDE      SIDE
C C      NRPT      NUMBER OF ROUTE POINTS
C C      NCORR      NUMBER OF CORRIDORS
C C      NOPEN      NUMBER OF DEPENDENT CORRIDORS
C C      NRECOVER      NUMBER OF RECOVERY POINTS
C C      NREF      NUMBER OF REFUEL POINTS
C C      NRNDRY      NUMBER OF HOUNDARY POINTS
C C      NREG      NUMBER OF REGIONS
C C      NTYPE      NUMBER OF WEAPON TYPES
C C      NGROUP      NUMBER OF WEAPON GROUPS
C C      NTOTBASE      NUMBER OF BASES, TOTAL
C C      NP2LOAD      NUMBER OF ENTRIES IN PAYLOAD INDEX TABLE
C C      NASHTYPE      NUMBER OF ASM TYPES
C C      NHNDTYPE      NUMBER OF WARHEAD TYPES
C C      NTANKBAS      NUMBER OF TANKER BASES
C C      NCOMPLEX      NUMBER OF COMPLEX TARGETS
C C      NCLASS      NUMBER OF WEAPON CLASSES(PRESENTLY 2)
C C      NALERT      NUMBER OF ALERT CONDITIONS(PRESENTLY 2)
C C      NTGTS      NUMBER OF TARGETS
C C      NCORTYPE      NUMBER OF CORRIDOR TYPES
C C      NCNTRY      NUMBER OF COUNTRY CODES
C C      .....
C C

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CUSE C      BKKPNT  1JUN71 *****
COMMON/RRKPNT/ INDBEG(250), TYPENAME(250),
1  CUMNO(15), HTYPES(15), INDCLAS(15), RTATYPE, RTARCLS
CEND C      BKKPNT *****
C C      RTATYPE = 250      MAXIMUM NUMBER OF TARGET TYPES
C C      RTARCLS = 15      MAXIMUM NUMBER OF TARGET CLASSES
C C      INDBEG           SMALLEST INDEX NUMBER OF EACH TYPE
C C      TYPENAME        TYPE NAMES IN ORDER OF INCREASING
C C                      INDEX NUMBER
C C      CUMNO           INCLUSIVE CUMULATIVE NUMBER OF
C C                      TYPES IN EACH CLASS
C C      HTYPES         NUMBER OF BLUE SIDE TYPES IN EACH CLASS
C C      INDCLAS        SMALLEST INDEX NUMBER IN EACH CLASS
C C      EXCESS  1JUN71 *****
CUSE C      COMMON /EXCESS/ NEXCESS, PEXBOMB, EXBOMB, PEXMIRV, EXMIRV,
1  PEXMISS, EXMISS, SBLREAL(200)
CEND C      EXCESS *****
C C      NEXCESS  NUMBER OF WORDS IN COMMON /EXCESS/
C C      PEXBOMB  PERCENT OF WEAPONS ADDED TO BOMBER GROUP FOR ALLOCATE
C C      EXBOMB  NUMBER OF BOMBER LOADS ADDED TO GROUP FOR ALLOCATE
C C      PEXMIRV SAME AS PEXBOMB FOR MIRV GROUPS
C C      EXMIRV  SAME AS EXBOMB FOR MIRV GROUPS
C C      PEXMISS SAME AS PEXBOMB FOR NON MIRV MISSILE GROUPS
C C      EXMISS  SAME AS EXBOMB FOR NON MIRV MISSILE GROUPS
C C      SBLREAL ACTUAL SBL FOR GROUP (I.E. NO SURPLUS WEAPONS CONSIDERED)
CUSE C      NAVAL  1JUN71 *****
C C      COMMON/NAVAL/NAVAL, IOBL(200), PKNAV(200)
CEND C      NAVAL *****
C C      NAVAL  NUMBER OF WORDS IN COMMON /NAVAL/
C C      IOBL  INDEX TO TIME DEPENDENT DBL TABLES
C C      PKNAV KILL PROBABILITY OF WEAPON AGAINST NAVAL TARGETS
CUSE C      ITP  1JUN71 *****
COMMON/ITP/ITP *****
CEND C      ITP *****
CUSE C      IFTPRNT  1JUN71 *****
COMMON/IFTPRNT/IFTPRNT(10) *****
CEND C      IFTPRNT *****
DATA((IFTPRNT(1:10)=10(0)) *****
CUSE C      BOUNDARY 1JUN71 *****
COMMON /BOUNDARY/ BPLINK(200), BPLAT(200), BPLONG(200),
1 BPTONE(200), NEXTZONE(200), MBNDRY
TYPE INTEGER BPLINK,BPTONE
CEND C      BOUNDARY *****

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```

C      I      FVAL(20), NDEFLT      10000
C      EQUIVALENCE (MYVAL, FVAL)      11000
C      IODUMMY      12000
C      INPUT      13000
C      NVALS      225000
C      NAMES      226000
C      INVALU      227000
C      INDEX1      228000
C      INDEX2      229000
C      INDEX3      230000
C      IREAD      231000
C      IWRITE      232000
C      ICOMH      233000
C      IPUNCH      234000
C      MYNAME      235000
C      MYFORM      236000
C      MYTYPE      237000
C      MYVAL      238000
C      CUSE      239000
C      OPTON      240000
C      IJUNT1      241000
C      COMMON/OPTION/ ICHANGE, IFIXTGT, NATIN, INDOVAL(2), INDOIN(2),      242000
C      1      INDOHAX(2), NDESREQ, NFIXREQ      243000
C      C      OPTON      244000
C      ICHANGE      245000
C      IFIXTGT      246000
C      RATIO      247000
C      INDOVAL      248000
C      INDOIN      249000
C      INDOHAX      250000
C      NDESREQ      251000
C      NFIXREQ      252000
C      C      CHANGES IJUNT1      253000
C      COMMON/ CHANGES/ ICLASMAN(2000), ITYPEMAN(2000), IDENTMAN(2000),      254000
C      1      VALUENEW(2000), IFOUND(2000), MCHANGE, MFIXREQ      255000
C      DIMENSION INFIX(10000)      1000
C      EQUIVALENCE(INFIX, ICLASMAN)      2000
C      COMMON/ SUMS/ OLDOSUM, SUMMED, NAMCLAS(20), FNCCLAS(20)      3000
C      CHANGES      4000
C      C      ICLASMAN      5000
C      ICLASMAN      6000
C      ICLASMAN      7000
C      ICLASMAN      255000
C      ICLASMAN      256000
C      ICLASMAN      257000
C      ICLASMAN      258000
C      ICLASMAN      259000
C      ICLASMAN      260000
C      ICLASMAN      261000
C      ICLASMAN      262000

```

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```

C IF(IRUNTP - 7*PRECOMP) 120, 1000, 120
C 120 IF(IRUNTP - 8*VALIFMON) 130, 2000, 130
C 130 IF(IRUNTP - 9*WINKMON) 140, 3000, 140
C 140 IF(IRUNTP - 9*MAXKLMOU) 150, 4000, 150
C 150 IF(IRUNTP - 8*FIXASSN) 160, 5000, 160
C 160 IF(IRUNTP - 4*STOP) 170, 6000, 170
C 170 IF(IRUNTP - 4*DUMP) 999, 7000, 999
C
C UNRECOGNIZED OPTION
C 999 WRITE(IWRIT, 999)
C 999 FORMAT(///** UNRECOGNIZED RUN OPTION**)
C STOP
C
C PRECOMP
C 1000 CALL ROUTING
C CALL F2APREP
C CALL TGTPREP
C GO TO 100
C
C VALUEMON
C 2000 CALL VALUMON
C GO TO 100
C
C WINKILL MOD
C 3000 CALL WINKMOD
C GO TO 100
C
C MAXKILL MOD
C 4000 CALL MAXMOD
C GO TO 100
C
C FIXED ASSIGNMENTS
C 5000 CALL SETFILE
C GO TO 100
C
C NORMAL TERMINATION
C 6000 CONTINUE
C WRITE(IWRIT, 6001)
C WRITE(ICOMP, 6001)
C 6001 FORMAT(//42H **** PROCESSOR PREPALLOC COMPLETED ****)
C STOP
C
C DUMP REQUESTED
C 7000 CALL ABORT
C STOP
C END

```

## IDENT PREPALOC

00316  
 PREPALOC 00046  
 WPNDA 23420  
 WPNREG 00025  
 WARHEAD 00227  
 PLANTYPE 00003  
 DPNREF 00300  
 PAYLOAD 00621  
 ASMTABLE 00145  
 CORRCHAR 01132  
 FILES 00020  
 NOWFILE 00006  
 MASTER 00027  
 BRKPNY 01043  
 EXCESS 00317  
 NAVAL 00421  
 ITP 00001  
 IFTPRNT 00012  
 BOUNDARY 01751  
 HAPPEN 01751  
 CHARTER 00241  
 MYIDENT 00001  
 NOPRINT 00001  
 TWORO 00001  
 IODUMMY 00374  
 MACHINE 00004  
 DEFAULT 00121  
 OPTION 00013  
 CHANGES 23422  
 SUMS 00052

 PROGRAM LENGTH  
 ENTRY POINTS  
 BLOCK NAMES

PREPALOC  
 WPNDA  
 WPNREG  
 WARHEAD  
 PLANTYPE  
 DPNREF  
 PAYLOAD  
 ASMTABLE  
 CORRCHAR  
 FILES  
 NOWFILE  
 MASTER  
 BRKPNY  
 EXCESS  
 NAVAL  
 ITP  
 IFTPRNT  
 BOUNDARY  
 HAPPEN  
 CHARTER  
 MYIDENT  
 NOPRINT  
 TWORO  
 IODUMMY  
 MACHINE  
 DEFAULT  
 OPTION  
 CHANGES  
 SUMS

## EXTERNAL SYMBOLS

QBENTHY  
 TMEND  
 QBSTOPS  
 QBODICT  
 VPREPALO  
 STORAGE  
 INITAPE  
 GETVALU  
 ROUTING  
 WEAPPREP  
 TGTREP  
 VALUMOD  
 MINMOD  
 MAXMOD  
 SETFILE  
 AROMT  
 TSM  
 STM  
 SLO  
 SLI

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[illegible]

## 5.ATS PREPALOC

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C01356	HAPDIST						
C00372	HAPLAT						
C00764	HAPLONG						
C00512	MILOATTR						
C06300	IALERT						
C00310	IASM						
C00000	ICHANGE	00112	00113				
C00740	ICLASS						
C00000	ICLASMAN						
C00002	ICOMM	C00002	00230	00230	00274	00274	00274
C00001	ICORL						
C00001	IDENTAO						
C07640	IDENTMAN						
C00001	IFIXTGT	00114					
C17500	IFOUND						
C00000	IFTPRINT	00003					
C00036	IMAP						
C00000	IMDATE						
C00550	IMIRV						
C00000	IMORER						
C01022	INDCLAS						
C00203	INDEX1	00166					
C00253	INDEX2	00166					
C00323	INDEX3	00167					
C00007	INDMAX	00123					
C00005	INDMIN	00121					
C00003	INDVAL	00117					
C00000	INFIX	00132					
X00007	INITAPE						
C00000	INITSTRK						
C00000	INPUT	00144					
C00063	INVALU	00165					
C05120	IPAY						
C01440	IPENMODE						
C00003	IPUNCH						
C00000	IREAD	00134					
C01320	IRECMODE						
C05120	IREFUEL						
C03460	IREG						
P00315	IROUNTYP	00173	00174	00177	00202	00205	00210 00213 00216
C00002	ISIDE						
C01560	ISIMTYPE						
C00000	ITP						
C00000	ITWGRD						
C03776	ITYPE						
C03720	ITYPFLMAN						
C00050	IWMQ1						
C00170	IWMQ2						
C00000	IWMQASH						
C00001	IWMIT	C00001	00147	00147	00221	00221	00265 00265
P00134	.100	00250	00253	00256	00261	00264	
P00242	.1000	00175					
P00172	.110	00175					
P00177	.120	00176					



P00202	.130	00201	00201
P00205	.140	00204	00204
P00210	.150	00207	00207
P00213	.160	00212	00212
P00216	.170	00215	00215
P00251	.2000	00200	
P00254	.3000	00203	
P00257	.4000	00204	
P00262	.5000	00211	
P00265	.6000	00214	
P00306	.7000	00217	
P00221	.999	00171	00220
P00003	..100000	00130	
P00016	..100001	00174	
P00017	..100002	00200	
P00020	..100003	00203	
P00021	..100004	00206	
P00022	..100005	00211	
P00023	..100006	00214	
P00024	..100007	00217	
P00004	..101	00140	
P00007	..102	00153	
P00034	..6001	00271	00300
P00025	..998	00225	00234
C00000	JAPTYPE		
C00156	JHAP		
C00360	KORSTYLE		
C00000	KOUNT		
C01750	LHAPMAX		
C01131	LMAX	00077	
C00144	MASH		
C00144	MASRTYPE	00071	00071
X00016	MAXPON	00257	
C01750	MENDAY	00101	00101
C23420	MCHANGE	00110	00110
C00040	MCOMR	00075	00075
C22032	MOESPFQ	00104	00107
C00276	MOPEN	00065	00065
C23421	MFIAREQ	00111	
C22031	MS		
C22031	MGROUP	00057	00060
X00015	MINKON	00254	
C00373	MORE	00167	
C00074	MOUNT		
C00620	MP		
C00620	MPAYLOAD	00067	00070
C00277	MREF	00066	
C00024	MREG	00062	00062
C01750	MRTPT	00102	00102
C00004	MSLTIME	C00003	
C01042	MTACCLS	00074	
C01041	MTARTYPE	00072	00073
C22030	MTYPE	00061	
C00226	MWMDTYPE	00063	00064

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C11610	MYDEXST		
C00000	MYFIXD		
C00024	MYFORM		
C00000	MYIDENT	00131	00131
C00000	MYNAME		
C00050	MYTYPE		
C00074	MYVAL		
C00500	NADECOYS		
C10023	NALERT		
C00500	NALHTULY		
C00002	NAMCLAS		
C00013	NAMES	00165	00172 00172
C00240	NASH		
C00016	NASHTYPE		
C00010	NBNDRY		
C00022	NCLASS		
C00360	NCH		
C00026	NCNTRY		
C00021	NCOMPLEX		
C00004	NCORR		
C00025	NCORTYPE		
C01130	NDATA	00076	00076
C00430	NDECOYS		
C00120	NDEFLT	00125	
C00011	NDESREQ		
C00005	NIDPEN		
C00000	NEXCESS	00103	00104
C01440	NEXTZONE		
C00012	NFIKRFQ	00126	
C00013	NG		
C00013	NGRCUP		
C00000	NNAVAL	00105	00105
C00000	NOBOMH1		
C00120	NOBOMR2		
C00000	NOPRINT		
C00023	NOTHER	00127	00127
C00015	NPAYLOAN		
C00606	NPRCRDEF		
C00006	NRECOVER		
C00007	NREF		
C00011	NREG		
C00003	NRTPY		
C00020	NTANKRAS		
C00024	NTGTS		
C00014	NTOTRASE		
C00012	NTYPE		
C00012	NVARS		
C02330	NVEHGRP	00164	00170 00170
C00017	NWHDTYPE		
C02020	NIPNS		
C00000	OLDSUM		
C00000	PCLAT		
C00036	PCLONG		
C00074	PZONE		

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C00062	POUD				
C00001	PEXROMR				
C00003	PEXMIIV				
C00005	PEXMISS				
C00311	PRNAV				
C00017	PLANTAPE	C00017			
C00002	POSTDATA	C00002			
C00776	PRATR				
P00046	PREPALOC	00046			
X00004	QROOICT	00000			
X00001	QROENTRY	00051			
X00003	QROSTOPS	00240			
C00000	RANGE	00304	00311		
C00024	RANGEASM				
C00420	RANGEDEC				
C01060	RANGERE				
C00002	RATIO	00115	00116		
C05740	REFTIME				
C01200	REL				
C00050	RELASH				
C00226	RFLAT				
C00252	REFLONG				
X00011	ROUTING	00242			
C04610	SBL				
C00007	SBLREAL				
X00017	SETFILE	00262			
X00024	SLI	00142			
X00023	SLO	00155			
C00240	SPEED				
C00120	SPEEDASH				
X00022	STH	00151	00223	00232	00267
X00006	STORAGE	00055			00276
C00014	STPKFIL	C00013			
C00001	SUMMEN				
C00000	TGTFILE	00003			
X00013	TGTPREP	00246			
X00002	TWEND	00145			
C00001	TWFILE	C00001			
C00010	TWALOC	C00007			
C00005	TWPOST	C00005			
C00004	TWPTAR	C00004			
X00021	TSH	00136			
C00000	TWORO				
C00372	TYPENAME				
C13560	VALUENEM				
X00014	VALUMOD	00251			
X00005	VPREPALO	00053			
X00012	WEAPPREP	00244			
C00006	WINFILE	00003			
C02640	WLAT				
C03150	WLONG				
C05430	YIELD				
C00000	YLD				
C00132	ZPLAT				

5.415 PREPALOC

C00170 ZPLONG  
00415 SYMBOLS

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SUBROUTINE RASRIT
  CSUBR RASRIT 1JUN71
  C
  C THIS SUBROUTINE WRITES THE HASFILE
  C
  CUSE OPTION 1JUN71
  C
  COMMON/OPTION/ ICHANGE, IFIXTGT, NATIO, INDOVAL(2), INNOVIN(2),
  1 INMAX(2), NOESREQ, #FIXREQ
  C
  CEND
  C
  CUSE OPTION
  C
  MASTER 1JUN71
  COMMON/MASTER/INDATE,IDENTNO,ISIDE,MRTOT,NCORR,NOPEN,NRECOVER
  1,MREF,NRNDAT,NNEG,NTYPE,NGROUP,INTOTBASE,NPAYLOAD,NASHTYPE,NMOTYPE
  2,NTAKHAS,NCOMPLEX,NCLASS,NALERT,NTGTS,NCORTYPE,NCNTRY
  EQUIVALENCE (NGROUP, NG), (NALERT, NOTHER)
  MASTER
  C
  CEND
  C
  CUSE RRPNT 1JUN71
  C
  COMMON/RRPNT/ INHREG(250), TYPENAME(250),
  1 CUMNO(15), RTYPES(15), INDCLAS(15), MTARTYPE, MTARCLS
  C
  CEND
  C
  CUSE TAPES 1JUN71
  C
  COMMON/FILES/ TGTFIL(2), HASFILE(2), NSLTIME(2),
  1 ALOCTAR(2), TMPALOC(2), ALOCGRP(2), STRKFIL(2),
  2 EVENTAPE, PLANTAPE
  C
  C TYPE INTEGER TGTFIL, HASFILE, NSLTIME, ALOCTAR,
  1 TMPALOC, ALOCGRP, STRKFIL, EVENTAPE, PLANTAPE
  C
  COMMON/MOFILE/ MINFIL, MINFIL, POSTDATA, FIXFILE, TMPYAR
  1 , TMPST
  C
  C TYPE INTEGER MINFIL, MINFIL, POSTDATA, FIXFILE, TMPYAR, TMPST
  C
  C TAPES
  C
  CORPCHAR 1JUN71
  COMMON /CORPCHAR/ PCLAT(30), PCLONG(30), PCZONE(30), ZPLAT(30),
  1 ZPLONG(30), ENLAT(30), ENLONG(30), CHLENGTH(30), KCRSTYLE(30),
  2 ATTCORR(30), ATTSUPR(30), MLOATTR(30), UCRANGE(30),
  3 NPHCRDEF(30), DEFNIST(30,3), ATTMPR(30,3), NDATA, LMAR
  C
  C TYPE INTEGER PCZONE
  TYPE REAL KCRSTYLE
  DIMENSION DISTAC(30), PHATTR(30,3), DISTDEF(30,3)
  EQUIVALENCE (DEFNIST,DISTDEF), (PRATTR,ATTMPR)
  EQUIVALENCE (CHLENGTH, DISTHC)
  CORPCHAR
  CEND
  CUSE CHAPTER 1JUN71
  COMMON/CHAPTER/KOUNT, , THAP(30), MOUNT(50), JMAP(50), MCONR
  1000
  39000
  2000
  3000
  4000
  5000
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  99000
  100000

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CEND          CHAPTER *****
CUSE          ASMTABLE 1JUN71 *****
              COMMON/ASMTABLE/1*HMAS*(20),RANGEAS*(20),RELASM(20)
              1*CEPASH(20),SPEEDASH(20),WAS*TYPE
              EQUIVALENCE (WAS*,WASMTYPE)
CEND          ASMTABLE *****
C              *****
CUSE          PAYLOAD 1JUN71 *****
              COMMON/PAYLOAD/NOHOMR1(40),1*HDI(40),NOHOMR2(40),1*HDI2(40)
              1*NAS*(40),IAS*(40),MCH(40),NECOYS(40),NANECOYS(40),LIRV(40)
              2*MPAYLOAD)
              EQUIVALENCE (MP*,MPAYLOAD)
CEND          PAYLOAD *****
C              *****
CUSE          DPERREP 1JUN71 *****
              COMMON/DPERREP/RIPLINK(50),NPLAT(50),NPLONG(50),NPLAT(20),
              *RFLONG(20),NOPEN*,NREF
              TYPE INTEGER RPLINK
              DPERREP *****
CEND          *****
C              *****
CUSE          PLANTYPE 1JUN71 *****
              COMMON/PLANTYPE/INITSTRK,COMMSL,COMQMS
              PLANTYPE *****
CEND          *****
C              *****
CUSE          WARHEAD 1JUN71 *****
              COMMON/WARHEAD/YLD(50),PHID(50),FFRAC(50),MMHCTYPE
              WARHEAD *****
CEND          *****
C              *****
CUSE          *PRNEG 1JUN71 *****
              COMMON/*PRNEG/CCREL(20),*PREV
              *PRNEG *****
CEND          *****
C              *****
CUSE          *WMDATA 1JUN71 *****
              COMMON/*WMDATA/RANGE(80),CEP(80),SPEED(80),ALERTLY(80),
              *HALTOLY(80),RANGFUEL(80),ICLASS(80),RANGREF(80),
              *WFL(80),IREC(80),IOPENMODE(40),ISTHYPE(80),
              3*FUNCTION(80),*MPNS(200),*WFWHGRP(200),*MLAT(200),
              4*WLONG(200),*IWEIG(200),*I*YPE(200),*IALEHT(200),*SRL(200),
              5*IDFFUEL(200),*YIELD(200),*LEFTIME(200),*DISTAC(200,30),
              6*H*TYPE,*NGROUP,*WDESPEC)
C              *****
C              DIMENSION IPAY(200),*MYFIXD(5000),*MYTEXT(5000),*DUMAR(10000)
C              *****
C              TYPE REAL HALPTOLY
C              TYPE INTEGER FUNCTION
C              *****
C              EQUIVALENCE (IPAY,IREFUEL),(*MG,*MGROUP)
C              *****
C              EQUIVALENCE (*MYFIXD,*WANGE,*DU*AR),(*YGEKST,*DUMAR(5001))
C              *****
C              *WMDATA *****
CEND          *****
C              *****
CUSE          EXCESS 1JUN71 *****
              COMMON /EXCESS/ NFXCESS, PEXHOMR, EXANOMR, PEXMIRV, EXRMIRV,
              1*PEXMISS, EXANTSS, SRLREAL(200)

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```

C      CEND      EXCESS      .....
C      CUSE      NAVAL      1JUN71      .....
C      COMMON/NAVAL/NAVAL, INBL(200), PNAVAL(200)
C      CEND      NAVAL      .....
C      CUSE      CTRYCN      1JUN71      .....
C      COMMON /CTRYCN/ CTRYCN(150), MCNTNY
C      DATA (MCNTNY = 150)
C      CEND      CTRYCO      .....
C      CUSE      ITP      1JUN71      .....
C      COMMON/ITP/ITP
C      CEND      ITP      .....
C      CUSE      MYIDENT      1JUN71      .....
C      COMMON/MYIDENT/MYIDENT
C      CEND      MYIDENT      .....
C      CUSE      MYLABEL      1JUN71      .....
C      COMMON /MYLABEL/ MYFORMAT, MYSECR, MYLENGTH, MYCOMM(S)
C      CEND      MYLABEL      .....
C      CUSE      TWORD      1JUN71      .....
C      COMMON /TWORD/ ITWORD
C      EQUIVLENCE (TWORD, ITWORD)
C      TWORD      .....
C      CUSE      EDITVAR      1JUN71      .....
C      C***** NOTE *****
C      THIS BLOCK IS COMMON / INPSTOR/ WHERE THE
C      VARIABLES ARE THOSE TO BE OUTPUT ON THE T6FILE.
C      IN ADDITION TEMPORARY STORAGE AREAS FOR
C      COMPLEX TARGET ELEMENTS AND MULTIPLE TARGET
C      ELEMENTS ARE DEFINED
C      COMMON/ INPSTOR/ TGTNAMZ, INDEMNZ, DESIGZ, TASKZ, CNTRYLCZ,
1      FLAGZ, TGTMLZ, T6TLAZ, T6TLONZ, T6TRAZ, VTZ, MZ, MZ(2),
2      W0Z(2), WKZ, FVAZ(3), IAZ(3), IMLASZ, ICLASSZ, INTPZ,
3      TAREZ, MISDEZ, MINKILZ, MAXKILZ, MAXC0SZ, INNP0EZ, DISTOFZ,
4      DISTOGZ, DISTC0Z(30), ATT0CNZ(30), NFIXEZ, MULDATA(M,5),
5      ICKDATA(26, 40)
C      TYPE INTEGER DESIGZ, TGTNAMZ
C      TYPE REAL MINKILZ, MAXKILZ
C      DIMENSION BLOCK(1600), NLOCK(1600)

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C      ALOC(2) = (NIGTS*45) + (5*NTGTS)
C      TNPALOC AND ALOCGRP
C      TNPALOC(2) = (NGROUP*125) + (15*NBOMH) + (10*N*ISL)
C      ALOCGRP(2) = TNPALOC(2)
C
C      STAKFIL
C      STAKFIL(2) = (150*NBOMH) + (300*N*ISL)
C
C      WRITE NASFILE
C      ITP = NASFILE(1)
C      MYLNGTH = NASFILE(2)
C      MYIDENT = 7HNASFILE
C      MYFORMT = 8HNOV 70
C      CALL SETWRITE
C      CALL WHARRAY(INDATE, 23)
C      NWD5 = MTARCLS + 3 + MTARTYPE + 2
C      CALL WHARRAY(INDATE, NWD5)
C      CALL WHARRAY(INDATE, 1A)
C      NWD5 = MCONR + 20 + 1
C      CALL WHARRAY(INDATE, NWD5)
C      NWD5 = MASTYPE + 5
C      CALL WHARRAY(INDATE, NWD5)
C      NWD5 = MPAYLOAD + 10
C      CALL WHARRAY(INDATE, NWD5)
C      NWD5 = (3*MDPEN) + (2*MDREF)
C      CALL WHARRAY(INDATE, NWD5)
C      CALL WHARRAY(INDATE, 3)
C      NWD5 = MASTYPE + 3
C      CALL WHARRAY(INDATE, NWD5)
C      CALL WHARRAY(INDATE, MREG)
C      NWD5 = MTYPE + 13
C      CALL WHARRAY(INDATE, NWD5)
C      NWD5 = MGROUP + (11*MCONR)
C      CALL WHARRAY(INDATE, NWD5)
C      CALL WHARRAY(INDATE, NEXCESS)
C      CALL WHARRAY(INDATE, NNAVAL)
C      CALL WHARRAY(INDATE, MCONTR)
C      ITP(2) = WHARRAY(INDATE, MCONTR)
C      CALL WHARRAY(INDATE, MCONTR)
C
C      NOW ADD POSTDATA INFORMATION
C
C      ITARG = TGTFILE(1)
C      MYIDENT = 7HGTFILE
C      IF PLANNING FACTORS HAVE CHANGED OR IF THERE ARE FIXED ASSIGNMENTS
C      THEN THE TARGET DATA IS ON THE TNPALOC FILE.
C      IF (ICHANGE + IFIXTGT) 90 + 100 + 90
C      90 ITARG = TNPALOC
C      MYIDENT = 7HNSWITCH
C      NORMALIZE DATA FROM POSTDATA
C      100 ITP = ITARG
C      CALL SETREAD
C
C      DO 200 I = 1, NTGTS
C      ITP = ITARG

```

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C      CALL ROADHAY(IGTAMWZ, LMG2)
CHECK TO SEE IF NORMALIZATION NECESSARY
IF (IGTMULZ - 1.001) 110, 110, 130
110 IF (IMCLASZ - 7*COMPLEX) 120, 140, 120
120 IF (IMCLASZ - 8*COMPLEX) 200, 140, 200
C
C      MULTIPLE TARGET
130 IMUL = IGT MULZ * .001
NWD5 = IMUL * MUATHUL
ITP = IPOST
CALL ROADHAY(MULDATA, NWD5)
ITP = HASFILE(1)
CALL WARRAY(MULDATA, NWD5)
GO TO 200
C
C      COMPLEX TARGET
140 NWD5 = IMTPYZ * MDATEX
ITP = IPOST
CALL WARRAY(CMATA, NWD5)
FRCLAS(ICLASSZ) = FRCLAS(ICLASSZ) - VIZ
DO 150 J = 11, NWD5, MDATEX
IC = ICNDATA(J+12)
NAMCLAS(IC) = ICNDATA(J+11)
FRCLAS(IC) = FRCLAS(IC) + CMATA(J)
IF (ICHANGE .NE. 0) CMATA(J) = CMATA(J) * RATIO
150 CONTINUE
ITP = HASFILE(1)
CALL WARRAY(CMATA, NWD5)
C
C      200 CONTINUE
C
C      TERMINATE TARGET FILE
ITP = ITARG
CALL TERMTAPE
C
C      COMPLETE TRANSMISSION OF DATA FROM POSTDATA TO HASFILE
250 ITP = IPOST
CALL RMWORD
ITP = HASFILE(1)
CALL RMWORD
IF (ITWORD - 8*XXXXXXXX) 250, 300, 250
C
C      TERMINATE ALL TLFS
300 ITP = IPOST
CALL TERMTAPE
ITP = HASFILE(1)
CALL TERMTAPE
RETURN
END

```

S-ATS BASWRIT

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BASWRIT

INENT

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

00507	00014	00013	00027	01043	00020	00064	01132	00241	00145	00421	00300	00003	00227	00025	23420	00317	00421	00227	00001	00010	00001	03190	00007	23422	00052	00014	
BASWRIT		OPTION	MASIFR	HRPJT	FILES	NOFILE	CORNGMAR	CHARTER	ASMTABLE	PAYLOAD	INPEJEF	PLANTYPE	WARHEAD	WPNREG	WPNDATA	EXCESS	NAVAL	CTHYCD	ITP	MYINENT	MYLABEL	TWONO	INPSTON	SIZES	CHANGES	SUMS	FILA-EL

EXTERNAL SYMBOLS

01010100	ORUNICT.
SETHEAD	
SETWRITE	
WRANRAY	
WRORD	
WRANRAY	
TEMPAPE	
WRORD	

5.4TS HASWHT.

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[illegible]

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**S.4TS B&S WRT**

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C00021	FVAZ
C00512	HILGATH
G00014	HZ
P00474	I
C00430	I ALERT
C00310	IASF
P00475	IC
C00040	ICHANGE
C00740	ICLASS
C00030	ICLASSZ
C00000	ICLASMAN
C00207	ICLADATA
C00001	IDRL
C00001	IDENTNOIN
C007640	IDENTMAN
C00001	IDEXTGT
C17500	IFOUND
C00036	IHAP
C00027	INCASZ
C00000	INDATE
C00031	INTYPZ
C00950	INTVY
P00476	IWUL
C00007	INCOMM
C00002	INDATE
C00000	INDREG
C01022	INDCLAS
C00001	INDEXANZ
C00007	INDMAR
C00005	INDMIN
C00003	INDVAL
C00037	INDX1-Z
C00000	INFX
C00003	INFORM
C00000	INITIAL
P00450	INITIAL
C00000	INITSTRK
C00006	INLGTH
C00001	INRUNNO
C00004	INSECR
C00005	INTIME
C05120	IPAY
C01440	IPENCODE
P00477	IPOST
C01320	IREFCODE
C05120	IREFUEL
C03460	IREF
C00002	ISIDE
C01560	ISIMTYPF
P00500	IT
C00501	ITP
C00000	ITP

00024	00027	00300	00414
00372	00374		
00056	00056	00264	00265
00036	00037		
00353	00353		
00371	00371	00373	00373
00265			
00312	00312	00310	00316
00141			
00343	00343		
00325			
00152			
00017			
00214			
00074	00074		
00052	00065	00070	00330
00035	00036		
00292	00270	00273	00301
00071	00071	00125	00126
00334	00346	00347	00410
00440	00440	00444	00444

00430  
00336

00331  
00430

00330  
00424

00302  
00424

00302  
00420

00274  
00420

00001  
00274  
00410

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C00000	ITWMD	00254	00433	00433	00111	00112	00114	00115	00115	00121
C03770	ITYPE	00034	00034		00146	00202	00204	00205	00236	00240
C03720	ITYPEMAN									
C00050	IMD01									
C00170	IMD02									
C00000	IMDASH	00171								
P00042	.10	00040								
P00273	.106	00264								
P00403	.100001									
P00406	.100002	00402								
P00312	.110	00310								
P00316	.120	00314								
P00322	.130	00311								
P00363	.140	00314								
P00406	.150									
P00446	.20	00041								
P00414	.200	00320	00342							
P00423	.250	00435	00436							
P00051	.30	00045								
P00437	.300	00435								
P00061	.40	00057								
P00064	.50	00057	00060							
P00066	.60	00063								
P00267	.90	00266								
P00454	.ERASER.	00103	00105	00105	00111	00112	00114	00115	00115	00121
		00122	00123	00144	00146	00202	00204	00205	00236	00240
P00003	.100000	00064								
P00004	.100001	00131								
P00005	.100002	00133								
P00006	.100003	00255								
P00007	.100004	00263								
P00010	.100005	00271								
P00011	.100006	00313								
P00012	.100007	00317								
P00013	.100008	00434								
P00502	J	00360								
C00156	JHAP		00365							
P00406	JS00003.	00370								
C00360	KORSTYLE									
C00000	KOUNT									
C00004	LINSTOR									
C01131	LMAX									
C00005	LMG1									
C00006	LMG2									
C00144	LMGM									
C00144	MASMTYPE	00052	00305							
C00036	MACOSZ	00164	00164							
C00035	MAXKILZ									
C23420	MCCHANGE									
C00226	MCNTRY	00003								
C00240	MCOOR	00156	00254	00235						
C00001	MDATCX	00344	00344	00363	00366	00367				
C00000	MDATMUL	00326	00326							
C22032	MDESREQ									

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C00276	MDPEN	00200	00201
C23421	MFIXREQ		
C22031	MG		
C22031	MGROUP	00236	00237
C00034	MINKILZ		
C00033	MISDEZ		
C00074	MOUNT		
C00620	MP		
C00620	MPAYLOAD	00172	00172
C00277	MREF	00203	00203
C00024	MREG	00225	
C00004	MSLTIME	00100	00100
C00002	MSPERMT		
C01042	MTARCLS	00142	00142
C01041	MTARTYPE	00144	00145
C00803	MTELMCH		
C22030	MTYPE	00226	00226
C00137	MULDATA	00334	00341
C00226	MUMDTYPE	00215	00215
C00003	MYCOMH		
C11610	MYDEXST		
C00000	MYFIAD		
C00000	MYFORMT	00134	00134
C00000	MYIDENT	00067	00067
C00002	MYLNQTH	00127	00130
C00001	MYSECR		
C00013	NZ		
C00500	NADECOYS		
C00023	NALERT		
C00500	NALRTNLY		
C00002	NAMCLAS	00375	00375
C00240	NASH		
C00016	NASTYPE		
C00010	NHMOBY		
P00503	NROMRR		
C00022	NCLASS	00023	00046
C00360	NCM		
C00026	NCNTRY		
C00021	NCOMPLEX		
C00004	NCORR		
C00025	NCORTYPE		
C01130	NDATA		
C00430	NDECOYS		
C00011	NDESREQ		
C00005	NDPEN		
C00000	NEXCESS	00246	00246
C00136	NFINEZ		
C00012	NFIXREQ	00054	00054
C00013	NG		
C00013	NGROUP	00024	00025
C00020	NKZ		
C00000	NLOCK		
P00504	NMISL	00022	00042
C00000	NNAVAL	00251	00251

00132 00132 00263 00264 00271 00272

00050 00112 00120

00107 00107

00044 00077 00113 00122

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C00000	NOROMBI	00177							
C00120	NOROMB2								
C00023	NOTHER								
C00015	NPAYLOAD								
C00006	NPRCRDEF								
C00006	NRECOVER								
C00007	NREF								
C00011	NREG								
C00003	NRTPT								
C00020	NTANKRAS								
C00024	NTGTS	00053	00101	00101	00415	00415			
C00014	NT07BASE	00021	00031	00033	00104				
P00505	NT07BPS								
C00012	NTYPE								
C00230	NVENGPP	00147	00152	00140	00163	00171	00174	00177	00217
P00506	NWOS	00222	00230	00233	00240	00243	00334	00341	00360
		00413							
C00017	NWMDTYPE	00032	00032	00043	00043	00047	00047	00243	
C00200	NWPN5								
C00000	OLOSUM	00163							
C00000	PCLAT								
C00036	PCLONG								
C00074	PCZONE								
C00062	POUD								
C00001	PEX50MB								
C00003	PEXIRV								
C00005	PEXMISS								
C00311	PKNAV								
C00017	PLANTAPE	00061	00061						
C00002	POSTDATA								
C00776	PRATP								
X00001	Q1010100	00324							
X00002	QADICT.	00000	00015						
C00000	RANGE	00233							
C00024	RANGREAS								
C00020	RANGREDEC								
C01060	RANGREF								
C00002	RATIO	00404	00404						
X00007	RDARHAY	00303	00332	00350					
X00011	RDHQR	00425							
C00740	REPTIME								
C01200	REL								
C00050	RELASM								
C00226	RELAT								
C00252	RFLONG								
C04610	SIL								
C00007	SRLREAL								
X00003	SETHEAD	00072	00275						
X00004	SETWRITE	00135							
C00240	SPEED								
C00120	SPEEDASM								
C00014	STARFIL	00124	00124						
C00001	SUMNEW								



C00032	TARIEZ								
C00003	TASKZ								
C00024	TAZ								
X00010	TERMTAPE								
C00000	TGTFILE	00421	00441	00445	00261	00261			
C00007	TGTLA7	00055	00055	00155					
C00010	TGTLONZ								
C00006	TGTMULZ	00306	00306	00322	00322				
C00000	TGTAKWZ	00306							
C00011	TGTRAZ								
C00001	TIMEFILE	00116	00116						
C00010	IMPALOC	00064	00064						
C00005	IMPOST	00267	00267						
C00002	IMPTAP								
P00052	TS00001.	00026							
P00415	TS00002.	00300							
P00407	TS00003.	00361	00364						
C00000	TWORO								
C00372	TYPENAME								
C13500	VALUENEW								
C00016	VOZ	00355	00355						
C00012	VTZ								
C00016	VZA								
C00017	VZH								
C00000	WINFILE								
C02640	WLAT								
C03150	WLONG								
X00005	WARMAY	00137	00150	00153	00167	00175	00207	00212	00220
		00241	00244	00247	00337	00411			
X00006	WARMOP	00257	00431						
P00031	WS00001.	00051	00416						
P00301	WS00002.								
P00371	WS00003.	00406							
C05430	YIELD								
C00000	YLN	00222							
C00132	ZPLAT								
C00170	ZPLONG								

00452 SYMBOLS

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```

SUBROUTINE CHKCHG
  CSUBR   CHKCHG   7SEPT71
  C
  C THIS SUBROUTINE CHECKS THE RESULTS OF THE VALUE CHANGES.
  C
  CUSE    CHANGES 1JUN71 *****
  C
  CCOMMON/ CHANGES/ ICLASMAN(2000), ITYPEMAN(2000), IDENTMAN(2000),
  C1      VALUENEM(2000), IFOUND(2000), MCHANGE, MFIXREQ
  C
  C DIMENSION INFIX(10000)
  C EQUIVALENCE(INFIX, ICLASMAN)
  C
  CCOMMON/ SUMS/ OLDSUM, SUMNEW, NAMCLAS(20), FRCLAS(20)
  CEND    CHANGES *****
  C
  CUSE    OPTION 1JUN71 *****
  C
  CCOMMON/OPTION/ ICHANGE, IFIXIGT, RATIO, INDOVAL(2), INDOHIN(2),
  C1      INDOHAA(2), AMESREQ, MFIXREQ
  C
  CEND    OPTION *****
  C
  CUSE    TAPFS 1JUN71 *****
  C
  CCOMMON/FILES/ TGFILE(2), HASFILE(2), MSLTIME(2),
  C1      ALOCYAR(2), TMPALOC(2), ALOCGRP(2), STRKFL(2),
  C2      EVENTAPE, PLANTAPE
  C
  C TYPE INTEGER TGFILE, HASFILE, MSLTIME, ALOCYAR,
  C1      TMPALOC, ALOCGRP, STRKFL, EVENTAPE, PLANTAPE
  C
  CCOMMON/NOHFILE/ WINFILF, TINFILE, POSTDATA, FINFILE, TMPTAR
  C1      TMPOST
  C
  C TYPE INTEGER WINFILE, TINFILE, POSTDATA, FINFILE, TMPTAR, TMPOST
  C
  CEND    TAPFS *****
  C
  CUSE    TWORD 1JUN71 *****
  CCOMMON/ TWORD/ ITWORD
  CEQUALENCE (ITORD, ITWORD)
  CEQUALENCE (ITORD, ITWORD)
  C
  CUSE    ITP 1JUN71 *****
  CCOMMON/ ITP/ ITP
  C
  CUSE    IORDUMPY 1JUN71 *****
  CCOMMON/ IORDUMPY/ INPUT(10), NVAHS, NAMES(40), INVALU(2,40),
  C1      INDEX1(40), INDEX2(40), INDEX3(40), MORE
  C
  CCOMMON/ MACHINE/ TREAD, IWRIT, ICUMM, IPUNCH
  C
  C DATA(IREAD = 60), (IWRIT = 61), (ICUMM = 44), (IPUNCH = 65)
  C

```

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```

COMMON/DEFAULT/ MYNAME(20), MYFORM(20), MYTYPE(20), MYVAL(20),
1  FVAL(20), NOEFLT
C
C EQUIVALENCE (MYVAL, FVAL)
C
C *****
C
C IF(ICHANGE) 200, 100, 200
100 RATIO = 1.0
ITP = POSTDATA
CALL TERMTAPE
RETURN
C
C FINISH TEMPORARY HASFILE
200 ITP = POSTDATA
CALL POSTORD
ITP = TPOST
CALL WORDORD
IF(WORDORD - 8888888888) 200, 210, 200
210 ITP = POSTDATA
CALL TERMTAPE
ITP = TPOST
CALL TERMTAPE
C
C SFT FINAL RATIO VALUE
RATIO = CLOSUM / SUMNEW
C
C IPHNT = 0
ISTART = 1
IEND = XMAXOF(INDVAL(2), INDMIN(2), INDMAX(2))
NTOT = 0
DO 300 I = ISTART, IEND
  NTOT = NTOT + IFOUND(I)
  IF(IFOUND(I)) 220, 220, 300
220 IF(IPHNT) 230, 230, 240
230 WRITE(IWRIT, 231)
231 FORMAT('THE FOLLOWING CHANGE REQUESTS WERE NEVER EXERCISED //3(2
1X, #TARGET, 2X), 3X, #REQUESTED/* CLASS TYPE IDENTIFIER
1  CHANGE*)
  IPHNT = 100
240 IF(I.LE. INDVAL(1) .AND. I.LE. INDVAL(2)) IAM = SHVALUE
  IF(I.GE. INDMIN(1) .AND. I.LE. INDMIN(2)) IAM = THPINKILL
  IF(I.GE. INDMAX(1) .AND. I.LE. INDMAX(2)) IAM = THMAXKILL
C
C CHECK FOR TYPE OF IDENTIFIER
ITEST = IDENTMAN(I)
IF (ITEST) 260, 260, 245
245 IF (ITEST - 12000) 250, 250, 260
C
C INDEX IDENTIFIER
250 WRITE(IWRIT, 251) ICLASMAN(I), ITYPEMAN(I), IDENTMAN(I), VALUENEW(
1), IAM
251 FORMAT('1X, AB, 2X, AR, 4X, 15, AX, F10.4, 2X, AB)
GO TO 300
C
C DESIGN IDENTIFIER
260 WRITE(IWRIT, 261) ICLASMAN(I), ITYPEMAN(I), IDENTMAN(I), VALUENEW(
1), IAM
261 FORMAT('1X, AR, 2X, AR, 2X, AR, 2X, AR, 3X, F10.4, 2X, AB)
300 CONTINUE

```

FTNS.5

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3

WRITE (UNIT.301) MTOT  
301 FORMAT(//)\* THERE WERE \*.15.\* CHANGES ACTUALLY MADE ON THE TARGET  
10DATA\*  
RETURN  
END

64000  
65000  
66000  
67000  
68000

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5.4TS CHKCHG

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IDENT . CHKCHG

00346  
00114  
23422  
00052  
00013  
00020  
00004  
10001  
10001  
00374  
00006  
12012

PROGRAM LENGTH	ENTRY POINTS	BLOCK NAMES
10	1	1
20	2	2
30	3	3
40	4	4
50	5	5
60	6	6
70	7	7
80	8	8
90	9	9
100	10	10
110	11	11
120	12	12
130	13	13
140	14	14
150	15	15
160	16	16
170	17	17
180	18	18
190	19	19
200	20	20
210	21	21
220	22	22
230	23	23
240	24	24
250	25	25
260	26	26
270	27	27
280	28	28
290	29	29
300	30	30
310	31	31
320	32	32
330	33	33
340	34	34
350	35	35
360	36	36
370	37	37
380	38	38
390	39	39
400	40	40
410	41	41
420	42	42
430	43	43
440	44	44
450	45	45
460	46	46
470	47	47
480	48	48
490	49	49
500	50	50
510	51	51
520	52	52
530	53	53
540	54	54
550	55	55
560	56	56
570	57	57
580	58	58
590	59	59
600	60	60
610	61	61
620	62	62
630	63	63
640	64	64
650	65	65
660	66	66
670	67	67
680	68	68
690	69	69
700	70	70
710	71	71
720	72	72
730	73	73
740	74	74
750	75	75
760	76	76
770	77	77
780	78	78
790	79	79
800	80	80
810	81	81
820	82	82
830	83	83
840	84	84
850	85	85
860	86	86
870	87	87
880	88	88
890	89	89
900	90	90
910	91	91
920	92	92
930	93	93
940	94	94
950	95	95
960	96	96
970	97	97
980	98	98
990	99	99
1000	100	100
1010	101	101
1020	102	102
1030	103	103
1040	104	104
1050	105	105
1060	106	106
1070	107	107
1080	108	108
1090	109	109
1100	110	110
1110	111	111
1120	112	112
1130	113	113
1140	114	114
1150	115	115
1160	116	116
1170	117	117
1180	118	118
1190	119	119
1200	120	120
1210	121	121
1220	122	122
1230	123	123
1240	124	124
1250	125	125

```

CHKCHG
CHANGES
SUMS
OPTION
FILES
NONFILE
TWO..
ITP
IDCUMHY
MACHINE
DEFAULT

```

## EXTERNAL SYMBOLS

THEND.  
QUODUCT.  
TENDTAFE  
KQ=QND  
WRAQND  
KFIAXNF  
STM.  
QPSI:GL.



5.4TS

CHKCHG

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P00225	.100002	00216	00221		
P00234	.100003	00232	00233		
P00236	.100004	00227	00232		
P00245	.100005	00243	00244		
P00247	.100006	00240	00243		
P00132	.200	00121	00122	00144	00145
P00146	.210	00144			
P00200	.220	00176	00177		
P00203	.230	00201	00201		
P00214	.240	00202			
P00253	.245				
P00256	.250	00254	00255		
P00276	.260	00252	00252	00255	
P00315	.300	00177	00275		
P00003	.100000	00143			
P00041	.100001	00223			
P00042	.100002	00234			
P00043	.100003	00245			
P00004	.231	00207			
P00044	.251	00262			
P00061	.261	00302			
P00076	.301	00324			
C23420	CHANGE				
C23421	FIXED				
C00373	MOVE				
C00004	MSLINE				
C00024	MYFORM				
C00000	MYNAME				
C00050	MYTYPE				
C00074	MYVAL				
C00002	NAMCLAS				
C00013	NAMES				
C00120	NDEFIL				
C00011	NDESREQ				
C00312	NFIXREQ				
P00345	NTOT	00170	00172	00175	00325
C00012	NVARS				
C00000	OLDSUM	00156	00156		
C00017	PLANTAPE				
C00002	POSTDATA	00125	00125	00132	00146 00146
X00002	ORRECT.	00000	00115		
X00010	QNSINGL.	00332			
C00002	RATIO	00124	00124	00157	00160
X00004	ROWCHG	00134			
X00007	STM.	00205	00260	00300	00322
C00014	STRKFL				
C00001	SUMNEW	00157			
X00003	TEMPAPE	00127	00150	00154	
C00000	TGIFILE				
X00001	THERO.	00210	00273	00313	00327
C00001	TINFILE				
C00010	TEMPALOC				
C00005	TEMPST	00136	00136	00152	00152
C00004	TEMPAP				

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POC314	TS00001.	00171
CO0000	TS0000	
CI3500	VALUE-04	00270
CO0000	WTRFLE	00310
X00005	WTRFLE	00140
PO0172	W500001.	00317
X00004	WTRFLE	00163
	00161 SYMBOLS	

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```

SUMROUTINE FIXEAP
CSUBR  FIXEAP  7SEP71  *****
C      THIS SUBROUTINE REWRITES THE TGTFILE AND ADDS
C      THE FIXED ASSIGNMENTS TO IT. IF THERE WERE
C      VALUE CHANGE REQUESTS, THE TARGET VALUE ARE RENORMALIZED.
C
CUSE  OPTION  1JUN71  *****
C
COMMON/OPTION/ ICHANGE, IFIXTGT, MATIO, INVAL(2), INDMIN(2),
1  INDMAX(2), NRESREQ, NFIXREQ
C
CEND
C
CUSE  OPTION  *****
C
COMMON/MASTER/ IPRATE, IDENTNO, ISIDE, IPTI, CORP, WOPEN, RECOVER
1  NHPF, NMMHY, NREG, NTYPE, AGROUP, NTOTMSE, NPAYLOAD, NASNTYPE, NNHDTYPE
2  NTAHNAS, NCOMPLEX, NCLASS, NALFMT, NTGTS, NCORTYPE, NCNTRY
EQUIVALENCE (AGROUP, NG), (NALERT, NOTHER)
C
CEND
C
CUSE  CHANGES  1JUN71  *****
COMMON/ CHANGES/ ICLASWAI(2000), ITYPEAN(2000), IDENTNWH(2000),
1  VALUENFW(2000), IFOURP(2000), MCHANGE, WFIXED
C
C      DIMENSION INFIAC(10000)
EQUIVALENCE (IMPTX, ICLASWAI)
C
COMMON/ SUMS/ ULOSUM, SUMNEW, NAMCLAS(20), FMCLAS(20)
C
CEND
C
CUSE  WPMATA  1JUN71  *****
COMMON/ WPMATA/ RANGE(40), CEP(40), SPEED(40), ALEHIDLY(80),
1  ALPTDLY(40), RANGEDEC(40), ICLASS(40), RANGEREFT(80),
2  WFL(40), IPECODE(40), IPEMODE(40), ISIMTYPE(40),
3  FUNCTION(40), NWPNS(260), NVFMGPP(240), WLAT(200),
4  WLONG(200), IMEG(200), ITYPE(200), IALERT(200), SWL(200),
5  IDEFUEL(200), YIELD(200), SPTIME(200), DISTAC(200, 30),
6  WTYPE, WGROUP, WDESECO
C
C      DIMENSION IPAY(200), WFIXD(5000), WYREXT(5000), UUMAR(10000)
C
C      TYPE REAL MULTIPLY
C      TYPE INTEGER FUNCTION
C
EQUIVALENCE (IPAY, IREFUEL), (W5, WGROUP)
C
EQUIVALENCE (WFIXD, RANGE, UUMAR), (WYREXT, UUMAR(5001))
C
CEND
C
CUSE  WPMATA  *****
COMMON/ WPMATA  1JUN71  *****
C
COMMON/ RPDUMWY/ INPUT(10), NVERB, NAMES(40), INVALU(2, 40),
1  INTEX(1, 40), INTEX2(40), INTEX3(40), JUME
C

```

```

COMMON/ MACHINE/ TREAD, L-IT, ICUM, IPUNCH
C
DATA(ICUM = 64), (L-IT = 61), (ICUM = 64), (IPUNCH = 65)
C
COMMON/DEFAULT/ MYNAME(20), MYFORM(20), MYTYPE(20), MYVAL(20),
1 FVAL(20), AREFLT
C
EQUIVALENCE (MYVAL, FVAL)
C
CEND
C
CUSE
C
COMMON/ANAL/ANAL, INAL(200), PNAVAL(200)
C
CEND
C
CUSE
C
COMMON/FILES/ TGFILE(2), HASFILE(2), NSLTIVE(2),
1 ALLOC(2), TPALOC(2), ALOCGRP(2), STRFIL(2),
2 EVENTAPE, PLANTAPE
C
TYPE INTEGER TGFILE, HASFILE, NSLTIVE, ALOCGRP,
1 TPALOC, ALOCGRP, STRFIL, EVENTAPE, PLANTAPE
C
COMMON/NOFILE/ STNFILE, TINFIL, POSTDATA, FIXFILE, TMTAR
1 , TPOST
C
TYPE INTEGER STNFILE, TINFIL, POSTDATA, FIXFILE, TMTAR, TPOST
C
TAPES
C
CUSE
C
COMMON/ITW/ITP
C
CEND
C
CUSE
C
COMMON/VIPIENT/VIPIENT
C
COMMON/VIPIENT/VIPIENT
C
CUSE
C
COMMON/ MYLAPL/ MYFORMAT, MYSECR, MYINITH, MYCUM(5)
C
CEND
C
CUSE
C
COMMON/ITW/ITW
C
EQUIVALENCE (ITW, ITWGR, ITWGRH)
C
CEND
C
CUSE
C
COMMON/PHATC/PHATC(7), ISHT(3), INDS(3), IDENIN, NIGS,
1 PHATC, VSET(7)
C
COMMON/PHATC/PHATC(7), ISHT(3), INDS(3), IDENIN, NIGS,
1 PHATC, VSET(7)
C
CEND

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```

C CUSE EXCESS LJUN71 *****
C COMMON /EXCESS/ NEXCESS, PEXA04R, EXA00MR, PEXMIRV, EXMIRV,
1 PEXMIS, EXMIS, SHLDEAL(200)
C CEND *****
C CUSE *****
C CUSE *****
C C***** DATE *****
C THIS BLOCK IS COMMON / IMPSTOR/ WHERE THE
C VARIABLES ARE THOSE TO BE OUTPUT ON THE TGTFILE.
C IN ADDITION TEMPORARY STORAGE AREAS FOR
C COMPLEX TARGET ELEMENTS AND MULTIPLE TARGET
C ELEMENTS ARE DEFINED
C
C COMMON/ IMPSTOR/ TGTNAMZ, INDFANZ, DFIGZ, IASKZ, CNIRYLCZ,
1 FLAGZ, TGTMLZ, TGTLAZ, TGTLOPZ, TGTTRAZ, VTZ, WZ, W7(2),
2 VOZ(2), WKZ, EVAZ(3), TAT(3), ICLASZ, INTYPZ,
3 TAREFZ, MISUEZ, MINNKLZ, MARKILZ, MAXCOSZ, INDPPEZ, DISTOFZ,
4 DISTOFZ, DISTOZ(30), ATTACHZ(30), NFIREZ, MULDATA(4,5),
5 ICXDATA(29, 40)
C
C TYPE INTEGER DESIGZ, TGTNAMZ
C TYPE REAL MIKILZ, MARKILZ
C
C DIMENSION BLOCK(1400), BLOCK(1400)
C EQUIVALENCE(BLOCK, TGTNAMZ, BLOCK)
C
C EQUIVALENCE(VZA, VOZ(1)), (VZ4, VOZ(2))
C
C DIMENSION CXDATA(29, 40)
C EQUIVALENCE(CXDATA, ICXDATA)
C
C COMMON/ SIZES/ MATHUL, MDATA, MDPERT, MTELCHK, LINSTOR,
1 LAG1, LAG2
C CEND *****
C C *****
C DIMENSION NFIREZ(200), INDMZ(200), NMPG(200)
C EQUIVALENCE(NFIREZ, IUGL), (INDM, PEXM), (NMPG, SHLDEAL)
C *****COMMON/NAVAL/ AND /EXCESS/ USED HERE FOR TEMPORARY
C STORAGE OF WEAPON DATA
C
C DO 5 I = 1, NGROUP
C NMPG(I) = NMPG(I)
C NFIREZ(I) = 0
C IT = ITYPE(I)
C 5 IF(NFIREZ(I) = ICLASZ(IT) - 1)
C
C INITIALIZE FILE AND HEAD IN DATA
C
C ITP = FIXFILE
C MYIDENT = TMSOATCH

```

```

C
CALL SETHEAD
CLEAR ADAYS
DO 10 I = 1, NFIXPW
  10 INFIX(I) = 0
  NTIMES = PDESHPW
  DO 20 J = 1, NTIMES
    MYFIX(J) = 0
  20 MYDEX5(I) = 0
C
  IANOW = 0
  DO 300 I = 1, NDESHEQ
    CALL RMWORD
    MYFIX(I) = ITWORD
    MYDEX5(I) = IANOW + 1
  300 CALL RMWORD
    IF(ITWORD - WHENUNLOCK) 200, 300, 200
  200 IANOW = IANOW + 1
    INFIX(IANOW) = ITWORD
    GO TO 100
  300 CONTINUE
  CALL TERMIAPE
  WRITE HEADNG
  301 FORMAT(10FIXED WEAPON ASSIGNMENTS LISTING*)
C
  INITIALIZE OTHER FILES
  ITP = TPTAR
  CALL SETHEAD
  ITP = TGFILE(1)
  MYIDENT = RHIGFILE
  MYLENGTH = TGFILE(2)
  CALL SETWPIE
C
  LP = LMG2 - 1
  NTOI = 0
  NTS = NTGTS
  DO 1000 I = 1, NTS
    NTOI = I
    ITP = TPTAR
    CALL HDARRAY(TGTNAMEZ, LNGZ)
    NORMALIZE VALUE
    VTZ = VTZ * MATIO
    VZA = VZA * MATIO
    VZB = VTZ - VZA
    MISDEF = MISDEF
    IDESIG = DESIGZ
    INDEXAO = INDEXNZ
    MULT = TGTMLCZ
    IF(ICHANGE) 500, 610, 600
    500 IF(IPRNTS*(7) *EU. 0) GO TO 610
    601 WRITE(IWHT, 601)
    601 FORMAT(10 IGT TGTNAME INDEXNO DESIG IMCLASS ICLASS INTYPE
      1 VALUE MINKILL MAXKILL ITG*)
    IPRNTNO = 7
    CALL PRINTOUT
    GO TO 615
  610 WRITE(IWHT, 611) I, TGTNAMEZ, DESIGZ, ENTRYLCZ, FLAGZ, INDEXNZ

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105000

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ALL FORMAT(//, TARGET NO., TGNAME, DESIG, INDEXNO, 3X, 15,
1 5X, 4X, 2X, 45, 45, 45, 11, 2X, 15)
A15 ITP = TGFILE(I)
CALL MMAPAV(TGNAMEZ, LM)
CHECK FOR FIXED ASSIGNMENTS
N04 = 0
DO 700 J = 1, NDESREQ
IF (FIXTGT) 670, 710, 630
TGACQ OPTION - CHECK TARGET NUMBER
A20 IF (I = MYFIX(J)) 700, 650, 700
DESIG OR INDEX NUMBER
630 IF (DESIG = MYFIX(J)) 640, 650, 640
640 IF (INDEXNO = MYFIX(J)) 700, 650, 700
FOUND A MATCH
C 650 ISTART = MYFEAST(J)
IEND = MYFEAST(J+1) - 1
IF (J EQ. NDESREQ) IEND = IANNOH
MYFIX(J) = 0
DO 660 K = ISTART, IEND
N04 = N04 + 1
IF (N04 = LINSTOR) 670, 670, 640
660 WRITE(IWRT, 661) LINSTOR
A61 FORMAT(//IA, 15(1H*)) MORE THAN 0.15% FIX REQUESTS ON THIS TARGET
IT, EXCESS WILL BE IGNORED*)
N04 = N04 - 1
GO TO 760
670 NLOCK(N04) = INFIX(K)
680 CONTINUE
700 CONTINUE
C CHECK FIXED ASSIGNMENT INFORMATION
710 IF (N04) 720, 720, 730
NO FIXES
C 720 ITWONH = 0
CALL MPOHD
WRITE(IWRT, 721)
721 FORMAT(//, NO FIXED ASSIGNMENTS*)
GO TO 1003
C 730 NCUT = 0
DO 850 J = 1, N04
DECODE(3, 731, NLOCK(J)) IG
731 FORMAT(A3)
IG = NUNGET(IG, 3)
IF (IG) 750, 750, 740
740 IF (IG = NGROUP) 760, 760, 750
C INVALID GROUP NUMBER
750 WRITE(IWRT, 751) NLOCK(J), IG
C 751 FORMAT(//IA, A, 5X, *GROUP NO., 15, * IS OUT OF RANGE, REQUEST IGNORE
10*)
GO TO 850
760 IF (NFIRES(IG) = NMPG(IG)) 780, 770, 770
C TOO MANY WEAPONS FIXED THIS GROUP
770 WRITE (IWRT, 771) NLOCK(J), IG, NMPG(IG)
771 FORMAT(//IA, A, 5X, *GROUP NO., *13, * HAS ALL ITS WEAPONS (*14 *)
FIXED, REQUEST IGNORED*)

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159000  
160000  
161000

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GO TO 450
780 IF(NOUT = 30) 430, 790, 790
C MORE THAN 30 WEAPONS FIXED
790 IF(MISDEF) 400, 800, 810
C UNDEFERRED TARGET
800 WRITE(IWRITE, NOUT)
801 FORMAT(//23X, "MORE THAN 30 WEAPONS FIXED ON AN UNDEFERRED TARGET.
      1 ALL FURTHER REQUESTS FOR THIS TARGET IGNORED*")
GO TO 440
810 IF(IHOMM(IIG)) 430, 830, 820
C HOMER ON DEFERRED TARGET IN SATURATION ATTACK
820 WRITE(IWRITE, 821) NLOCK(J), IG
821 FORMAT(//10X, "5X, GROUP NO. *13* IS A HOMER ON A TARGET ALLOCAT
      1ED MORE THAN 40 WEAPONS. REQUEST IGNORED*")
GO TO 450
C ALL OK
830 NOUT = NOUT + 1
      NLOCK(NOUT) = NLOCK(J)
      NFIXES(IG) = NFIXES(IG) + NOUT
850 CONTINUE
C
C WRITE FIXED ASSIGNMENT INFORMATION ON TUFILF
940 IF(NOUT) 720, 720, 870
870 ITOT = NOUT
      CALL WARMOD
      CALL ARRANG(NLOCK, NOUT)
      WRITE(IWRITE, 871) NOUT
871 FORMAT(//1X, "15* FIXED ASSIGNMENTS*// 10* GRP TIME *1)
      WRITE(IWRITE, 872) NLOCK(J), NLOCK(J), J = 1, NOUT)
872 FORMAT(//1X, "5, 2X, 5, 1X)
      NOUT = NOUT + NOUT
1000 CONTINUE
C
ITP = TAPTAP
CALL TAPTAPE
ITP = TUFILF(1)
CALL TAPTAPE
C CHECK NUMBER OF FIXES
      WRITE(IWRITE, 1001) NFIXES, NOUT
1001 FORMAT(// "OUT OF *15* REQUESTS FOR FIXED ASSIGNMENT: *15* *E
      1RE FULFILLED*")
      GO 1100 I = 1, ANSWER
      IF(MYFAC(I)) 1200, 1100, 1200
1100 CONTINUE
      GO TO 1300
C SOME IDENTIFIERS MISSED
1200 WRITE(IWRITE, 1201)
1201 FORMAT(// "THE FOLLOWING TARGET IDENTIFIERS WERE NEVER ENCOUNTERED
      1D ON THE TARGET FILE*")
      J = I
      IF(IWRITE) 1210, 1230, 1220
1210 WRITE(IWRITE, 1211)
1211 FORMAT(// "TARGET NUMBER*")
      GO TO 1230
1220 WRITE(IWRITE, 1221)
1221 FORMAT(// "DESIGNATOR OR INDEX NUMBER*")

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1230 DO 1340 I = J, NDESGED
1240 IF(MYFIX(I)) 1350, 1360, 1370
1350 IF(FIXTGT) 1340, 1360, 1370
1360 WRITE(UNIT, 1361) MYFIX(I)
1361 FORMAT(IX, I9)
1370 GO TO 1340
1371 WRITE(UNIT, 1371) MYFIX(I), MYFIX(I)
1371 FORMAT(2X, A5X, I9)
1380 CONTINUE
1390 GO TO 1400
1391 WRITE(UNIT, 1391)
1391 FORMAT(//) EVERY TARGET IDENTIFIER REQUESTED WAS ENCOUNTERED ON TM
1400 LE TARGET FILE*
1401 PRINT *DEAR* BY GROUPS
1401 WRITE(UNIT, 1401)
1401 FORMAT(1X, REAR* OF FIXED ASSIGNMENTS BY GROUP*/* GROUP FIXED WE
1401 LADONS TOTAL *REAR*
1401 DO 1420 I = 1, NGROUP
1401 IF(CFIX(I)) 1420, 1420, 1410
1410 WRITE(UNIT, 1411) I, CFIX(I), MYPR(I)
1411 FORMAT(2X, I3, IX, I5, IX, I5)
1420 CONTINUE
1420 RETURN
END

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218000  
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241000

IDENT FIWEAP

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

01424	FIWEAP
00410	
00013	OPTION
00027	MASTER
23422	CHANGES
00052	SUMS
23420	4PNDATA
00374	1000000
00004	MACHINE
00121	OFFAULT
00621	NAVAL
00020	FILES
00004	NOFILE
00001	ITP
00001	MYIDENT
00010	MYLA-EL
00001	TRON
00032	PHNCTRL
00317	EXCESS
03100	IMPSTOF
00007	SIZES

EXTERNAL SYMBOLS

TIMEP.
01010100
GRADICT.
SETHEAD
WINDCHD
TEMPTAPF
SETWITF
MDARRAY
PHINDOAT
WRAPDAY
APRIND
NUMSET
DEC.
STM.
UNINGL.





[illegible]

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[illegible]





5.ATS FIREAP

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ED 0

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P01420	NOV	00655	00715	00716	00732	00733	00737	00747	01124
C00015	MPAYLOAD								
C00026	NRECOVER								
C00007	UPFF								
C00011	PRFG								
C00003	MRTP								
C00020	NTANKAS								
C00021	NTGS	00561	00561						
C00024	NTGTS	00554	00555						
P01421	NTMES	00461	00463						
P01422	NTOT	00554	01170	01171	01214				
C00014	NTOTHA5F								
P01423	NTS	00554	01173						
C00012	NTYPE								
X00014	NUMSET	01003							
C00012	NVADS								
C02330	NVENGRP								
C00017	NWMTYPE								
C00007	NWPE	00427	00427	01032	01032	01046	01047	01362	01362
C02020	NWPA5	00426	00426						
C00000	ULDSUM								
C00001	PEARNPS								
C00003	PFMTIV								
C00005	PFMTISS								
C00011	PRNAV								
C00017	PLATAPF								
C00002	POSTDATA								
X00011	PR14T0AT	00625							
X00002	Q1010100	00605							
X00003	Q8001CT	00000	00415						
X00017	QNSINGL	01372							
C00000	RANGE								
C00020	WANGNEC								
C01060	WANGHEF								
C00002	WATID	00570	00570	00572	00573				
X00010	W0ARAY	00564							
X00005	W0WORD	00476	00506						
C05740	WFTIME								
C01200	RFL								
C04610	SRL								
C00007	SRLPEAL								
X00004	SETHEAD	00445	00537						
X00007	SETWHITE	00547							
C00020	SPEED								
X00016	STM	00530	00616	00632	00723	00760	01015	01036	01063
		01207	01234	01247	01257	01276	01311	01330	01337
C00014	STWAFIL								
C00001	SUMNEW								
C00032	TANDEF								
C00003	TASKZ								
C00024	TAZ								
X00006	TEMTAPE	00524	01177	01203					
X00000	TGTFIL	00541	00541	00545	00545	00647	00647	01201	01201
C00007	TGTLAZ								

1302

## 5.4TS FIXWEAP

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C00010	TGTL0A2								
C00006	TGTL0U2	00603	00604						
C00000	TGTL0AP2	00566	00637	00653					
C00011	TGTL0A7								
X00001	TMEWC.	00533	00621	00730	00763	01001	01025	01050	01146
		01166	01216	01237	01262	01304	01320	01333	01364
C00001	TIMFILE								
C00010	IMPALOC								
C00005	IMPOST								
C00004	IMPTAM								
P00441	TS00001.	00535	00535	00562	00562	01175	01175		
P00460	TS00002.	00423							
P00473	TS00003.	00452							
P00522	TS00004.	00464							
P01173	TS00005.	00475							
P00745	TS00006.	00557							
P00742	TS00007.	00656							
P01124	TS00010.	00714							
P01164	TS00011.	00770							
P01227	TS00012.	01156							
P01323	TS00013.	01221							
P01367	TS00014.	01265							
C00000	TW000	01345							
C13560	VALUEEN								
C00016	VOZ								
C00012	VIZ	00567	00567	00571	00571	00574	00574		
C00014	VZA	00572	00573	00574	00574				
C00017	VZH	00575							
C00000	WINFILE								
C02640	WLAT								
C03150	WLONG								
X00012	WRARRAY	00651	01134						
X00013	WR0000	00754	01132						
P00426	WS00001.	00440							
P00455	WS00002.	00457							
P00466	WS00003.	00472							
P00476	WS00004.	00523	00523						
P00560	WS00005.	01174	01174						
P00657	WS00006.	00744	00744						
P00715	WS00007.	00743	00743						
P00771	WS00010.	01125	01125						
P01157	WS00011.	01165	01165						
P01222	WS00012.	01230	01230						
P01266	WS00013.	01324	01324						
P01346	WS00014.	01370	01370						
C05430	YIELD								
	00536 SYMBOLS								

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SUBROUTINE MAKECHG
  CSURR  MAKECHG  LJUN71  *****
  C      THIS SUBROUTINE IS RESPONSIBLE FOR MAKING THE
  C      ACTUAL VALUE, ATKILL, AND MAXKILL
  C      CHANGES ON THE TGTFILE.
  C
  CUSE    CHANGES  LJUN71  *****
  C      COMMON/ CHANGES/ ICLASWAN(2000), ITPFMAN(2000), IDENTMAN(2000),
  C      VALUENEM(2000), IFOUNN(2000), MCHANUE, MFIXREQ
  C
  C      DIMENSION INFIX(10000)
  C      EQUIVALENCE(INFIX, ICLASWAN)
  C
  C      COMMON/ SUMS/ OLDSUM, SUMNEW, NAMCLAS(20), FHCCLAS(20)
  C      CHANGES *****
  C
  CUSE    OPTIOA  LJUN71 *****
  C      COMMON/OPTION/ ICHANGE, IFIATGT, MATIO, INDOVAL(2), INDMT(2),
  C      INDMAX(2), MDEFREQ, MFIXREQ
  C
  C      OPTIOA *****
  C
  C      TAPFS  LJUN71 *****
  C
  C      COMMON/FILES/ TGTFILE(2), HASFILE(2), WSLTIME(2),
  C      1 ALOCAT(2), TPALOC(2), ALOCGRP(2), STORFIL(2),
  C      2 EVENTAPE, PLANTAPE
  C
  C      TYPE INTERER TGTFILE, HASFILE, WSLTIME, ALOCAT,
  C      1 TPALOC, ALOCGRP, STORFIL, EVENTAPE, PLANTAPE
  C
  C      COMMON/UNFILE/ WINFILE, WINFILE, POSTDATA, FIAPFILE, TMTAT
  C      1 , TPOST
  C
  C      TYPE INTERER WINFILE, WINFILE, POSTDATA, FIAPFILE, TMTAT, TPOST
  C
  C      TAPFS *****
  C
  C      ITP  LJUN71 *****
  C      COMMON/ITP/ITP *****
  C
  C      ITP *****
  C
  C      EVENTAT  LJUN71 *****
  C
  C***** NOTE *****
  C      THIS BLOCK IS COMMON / IMPSTOR / WHERE THE
  C      VARIABLES ARE THOSE TO BE OUTPUT ON THE TGTFILE.
  C      IN ADDITION IT PROVIDES STORAGE AREAS FOR
  C      COMPLEX TARGET ELEMENTS AND MULTIPLE TARGET
  C      ELEMENTS ARE DEFINED
  C
  C      COMMON/ IMPSTOR/ TGTMAN2, INDEAN2, FSTGZ, TASK2, CNTOVLCT,
  C      1 F1AG2, TGTMAN2, TGTAL2, TGTLOW2, TGTBAZ, VTZ, W2, W7(2),
  C      2 W07(2), W12, FVAZ(3), IAZ(3), IMCLAS2, ICLASZ, IMPRP2,
  C      3 TABU2, MISCF2, MTKILL2, MAXKILL2, MARCOS2, INDYPP2, DISTOP2,

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FTNS.5

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4  HISTOZ, HISTOZ(30), ATTDCZ(30), MPFIZ, MULDATA(R55),
5  ICDATA(20, 40)
C
TYPE INTERM MSGZ, TGTMAXZ
TYPE REAL MINKILZ, MAXKILZ
C
DIMENSION BLOCK(1400), BLOCK(1400)
FOURVALUE(BLOCK, TGTMAXZ, BLOCK)
C
EQUIVALPCE(VZ, VZ(1)), (VZ, VZ(2))
C
DIMENSION CADATA(20, 40)
EQUIVALPCE (CADATA, TCDATA)
C
COMMON/ STFS/ MUNIT, MUNIT, MUNIT, MUNIT, MUNIT, MUNIT,
1  LUNIT, LUNIT
C
CEND *****
C
MULDATA  TEMPORARY STORAGE FOR MULTIPLE TARGET DATA
CXDATA  TEMPORARY STORAGE FOR COMPLEX TARGET DATA
C
C
C
DATA (MUNIT = 5) * (MUNIT = 40)
DATA (MUNIT = 5) * (MUNIT = 29)
DATA (LUNIT = 1400) * (LUNIT = 29) * (LUNIT = 95)
C
MUNIT  MAXIMUM NUMBER OF ELEMENTS PER MULTIPLE TARGET
MINKILZ MAXIMUM NUMBER OF ELEMENTS PER COMPLEX TARGET
MINKILZ MAXIMUM NUMBER OF DATA WORDS PER MULTIPLE ELEMENT
MINKILZ MAXIMUM NUMBER OF DATA WORDS PER COMPLEX ELEMENT
LUNIT  LENGTH OF COMPLEX/INSTRUMENT
LUNIT  LENGTH OF LOGICAL RECORD ON TAPE
LUNIT  LENGTH OF LOGICAL RECORD ON TAPE
C
THE FOLLOWING VARIABLES ARE INDEX TO THE MULTIPLE AND COMPLEX
TARGET DATA AREAS.
C
DATA (INDEX = 1) * (INDEX = 2) * (INDEX = 3),
1  (INDEX = 1), (INDEX = 2), (INDEX = 3),
2  (INDEX = 24), (INDEX = 27), (INDEX = 28)
C
CHECK TO SEE IF THERE ARE ANY CHANGES
C
IF (CHANGES) 200, 100, 200
C
DO CHANGES
100  CUNIT = CUNIT + VZ * TGTMAXZ
SUMMA = CUNIT
RETURN
C
CHANGES TO BE CHECKED
TOTAL = 0
INDEX = 0
MAXK = 0
MINK = TGTMAXZ * .01
TCMX = 0

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ISAVN = TGTNAMEZ
ISAVI = IAUERAZ
ISAVI = DESIGZ
MWDSC = 0
MWDSC = 0

C
C CHECK FOR MULTIPLE TARGET
C IF (TGTMLZ = 1.5) 220, 220, 210
C WFAO MULTIPLE TARGET DATA
C 210 ITP = POSTDATA
MWDSC = MWDATML * IMUL
CALL WARRAY(WULDATA, MWDSC)
GO TO 300
C CHECK FOR COMPLEX TARGET
C 220 IF ((IMCLASZ = TMCOMPLEX) * (IMCLASZ = MCOMPLEX)) 300, 230, 300
C WFAO COMPLEX TARGET DATA
C 230 ITP = POSTDATA
MWDSC = MWDATCA * IMTPY7
CALL WARRAY(ICXDATA, MWDSC)
ICPX = IMTPY2
C
C CHECK VALUE CHANGE ON TARGET ON COMPONENT
C 300 ISTART = INVAL(1)
IEND = INVAL(2)
IOPT = 1
OLDSUM = OLDSUM + VTZ
SUMNEW = SUMNEW + VTZ
IF (IVAL) 1000, 1000, 400
VALUE CHANGE FOUND
C 310 RATIO = VN/VTZ
SUMNEW = SUMNEW + (VN-VTZ) * TGTMLZ
VTZ = VN
VOZ(1) = VOZ(1) * RATIO
VOZ(2) = VOZ(2) * RATIO
IVAL = 1
C CHANGE VALUES OF COMPLEX COMPONENTS IF TARGET IS A COMPLEX
C IF (ICPX) 400, 400, 320
320 GO 330 IF = 1, ICPX
330 CXDATA(IVTZ,1) = CXDATA(IVTZ,1) * RATIO
C
C CHECK MINIKILL CHANGE ON MAIN TARGET
C 400 ISTART = INDMIN(1)
IEND = INDMIN(2)
IOPT = 2
IF (IMINK) 1000, 1000, 500
MINIKILL CHANGE FOUND
C 410 RTIO = VN / MINIKILZ
MINIKILZ = VN
IMINK = 1
C CHANGE MINIKILL ON TARGET COMPONENTS IF TARGET IS A COMPLEX
C IF (ICPX) 500, 500, 420
420 GO 430 IF = 1, ICPX
430 CXDATA(IMINK,1) = CXDATA(IMINK,1) * RTIO
C
C CHECK MAXKILL CHANGE ON MAIN TARGET
C 500 ISTART = INDMAX(1)

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IEND = (IMAX(2))
IOPT = 3
IF (IPARK) 1000, 1000, 400
MINKILL CHANGE SOUND
510 RTIO = VN / MARKIL7
MARKILZ = VN
IPARK = 1
C CHANGE MINKILL ON TARGET COMPONENTS IF TARGET IS A COMPLEX
IF (ICPX) 600, 600, 520
520 GO 530 IF = 1, ICPX
530 CXDATA(IIPARK,II) = CXDATA(IIPARK,II) * RTIO
C
C CHECK COMPONENTS IF NECESSARY
600 IF (IMUL-1) 620, 620, 610
610 IF = IMUL
IMUL = IMUL - 1
TGTNAMZ = MULDATA(1NAME, IIM)
INDEXZ = MULDATA(1INDEX, IIM)
DESIGZ = MULDATA(1DESIG, IIM)
GO TO 300
C RESTORE VALUES
620 TGTNAMZ = ISAVI
DESIGZ = ISAVI
INDEXZ = ISAVI
IF (INQSM) 700, 700, 630
630 ITP = IMPOST
CALL MARRAY(MULDATA, NINQSM)
C
C CHECK ON COMPLEX
700 IF (ICPX) 900, 900, 710
C
710 ISAVIC = IMCLASZ
ISAVIC = ICLASSZ
ISAVT = IMTPZ
IIC = ICPX
IMC = 0
720 TGTNAMZ = ICXDATA(1NAME, IIC)
INDEXZ = ICXDATA(1INDEX, IIC)
DESIGZ = ICXDATA(1DESIG, IIC)
IMCLASZ = ICXDATA(1MCLS, IIC)
ICLASZ = ICXDATA(1ICLS, IIC)
IMTPZ = ICXDATA(1IMTP, IIC)
ISTART = INDVAL(1)
IEND = INDVAL(2)
IOPT = 4
IF (IVAL) 1000, 1000, 740
VALUE CHANGE
730 CXDATA(IMTPZ, IIC) = VN
IMC = 1
C CHECK FOR MINKILL
740 ISTART = INDMIN(1)
IEND = INDMIN(2)
IOPT = 5
IF (IMINK) 1000, 1000, 760
MINKILL CHANGE
750 CXDATA(IMINK, IIC) = VN

```

```

C      JMC = 1
      CHECK FOR MAXKILL
      760 ISTART = THIMAX(1)
      IEND = THIMAX(2)
      IOST = A
      IF(IIMARK) 1000, 1000, 740
      MAXKILL CHANGE
      770 CRODATA(IIMARK, IIC) = VN
      JMC = 1
      GET NEXT ELEMENT IF NECESSARY
      780 IIC = IIC-1
      IF(IIC, 790, 790, 720
      RESTORE VALUES
      790 IATHANZ = ISAVN
      I-DEANZ = ISAVI
      DESIGZ = ISAVO
      IMCLASZ = ISAVHC
      ICLASSZ = ISAVIC
      IMTPZ = ISAVI
      IF (IMC) 820, 820, 800
      RESET VALUES IF NECESSARY
      800 SV = 0
      SPN = 0
      SMA = 0
      DO #10 JJ = 1, ICPX
      VN = CRODATA(VTZ, JJ)
      SV = SV + VN
      SPN = VN + CRODATA(IIMARK, JJ) + SMIN
      SMA = VN + CRODATA(IIMARK, JJ) + SMA
      #10 CONTINUE
      RATIO = SV/VTZ
      SUMSPA = SUMSPA + SV - VTZ
      VTZ = SV
      VOZ(1) = VOZ(1) + RATIO
      VOZ(2) = VOZ(2) + RATIO
      MTHKIL7 = SPN / SV
      MAXKIL7 = SMA / SV
      #20 ITP = I-POST
      CALL MAXRAY(ICKUATA, MAXOSC)
      900 RETURN
C      CHECK FOR CHANGES
C      1000 IF(ISTART) 1100, 1100, 1010
      1010 IF(IEND-ISTART) 1100, 1020, 1020
      1020 DO 1020 I = ISTART, IEND
      CHECK CLASS
      IF((ICLASWAN(I) .EQ. 1) .OR.
      1 (ICLASWAN(I) .EQ. 3)ALL) .OR.
      2 (ICLASWAN(I) .EQ. 1)ALL) 1021, 1029
      CHECK TYPE
      1021 IF((ITYPEWAN(I) .EQ. 1) .OR.
      1 (ITYPEWAN(I) .EQ. 3)ALL) .OR.
      2 (ITYPEWAN(I) .EQ. 1)ALL) 1022, 1029
      CHECK IDENTIFIER

```

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1022 IF ((IDENTMAN(I) .EQ. 14) .OR.
1      (IDENTMAN(I) .EQ. 344)) .OR.
2      (IDENTMAN(I) .EQ. 45162) .OR.
3      (IDENTMAN(I) .EQ. 144642)) 1200, 1029
1029 CONTINUE
C      NO MATCH FOUND
C
C 1100 GO TO (400, 500, 600, 740, 740, 740), IOPT
C
C      CHANGE FOUND
C
C 1200 VA = VALUENE(I)
      IF (OPT(I) = 1)
        GO TO (310, 410, 510, 730, 750, 770), IOPT
C
      END

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5.415 MARKCHG

PROGRAM LENGTH-  
ENTRY POINTS  
BLOCK NAMES

MARKCHG

CHARACTERS

SUMS

OPTION

FILES

NO-FILE

ITP

INSTRON

SIZES

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TOP AT

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MARKCHG

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ED

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PAGE NO.

7







5.4.15

MAKFCMG

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PAGE NO.

10

PO0575	.1200	00567	00553	00557	00563
PO0037	.2000	00031	00032		
PO0063	.2100				
PO0074	.2200	00062			
PO0105	.2300	00103			
PO0120	.3000	00074	00103	00104	00270
PO0135	.3100	00604			
PO0156	.3200				
PO0164	.3300				
PO0170	.4000	00134	00155	00155	00571
PO0177	.4100	00604			
PO0207	.4200				
PO0215	.4300				
PO0221	.5000	00176	00205	00200	00571
PO0230	.5100	00604			
PO0240	.5200				
PO0244	.5300				
PO0252	.6000	00227	00236	00237	00572
PO0255	.6100	00253	00254		
PO0271	.6200				
PO0301	.6300	00300	00300		
PO0307	.7000				
PO0311	.7100	00404			
PO0322	.7200	00604			
PO0330	.7300	00367	00572		
PO0354	.7400	00607			
PO0363	.7500	00762	00474		
PO0367	.7600	00607			
PO0376	.7700	00376	00574		
PO0402	.7800	00405	00405		
PO0407	.7900				
PO0425	.8000				
PO0451	.8100	00424	00424		
PO0476	.8200	00310	00310		
PO0504	.8300	00077	00101	00102	00102
PO0506	.8400	00074			
PO0514	.8500	00101			
PO0515	.8600	00516			
PO0516	.8700	00522			
PO0517	.8800	00532			
PO0526	.8900	00536			
PO0521	.9000	00546			
PO0522	.9100	00552			
PO0523	.9200	00431			
PO0524	.9300	00003			
PO0525	.9400	00005			
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PO0701	.0000	00004			

C21421	4FIXOFO	00200	00200	00202	00203	00472	00473		
C00034	WINKILZ								
C00033	WISDEZ								
C00004	WSTIDE								
C00002	WSPERT	00003							
C00003	WTELMCM	C00003							
C00137	WULDATA	C0072		00262	00264	00265	00267	00305	
C00013	WZ								
C00002	WAMCLAS								
C00011	WRESUFO								
C00136	WFLAEZ								
C00012	WFIXOFO								
C00020	WIZ								
C00000	WLOC4								
P01113	WNO5C	00057	00111	00114	00502				
P01114	WNO5S	00054	00067	00072	00305				
C00000	WLD5UM	C0034	00035	00035	00125	00127	00127	00127	
P00665	W0000000	00652							
P00665	W0000100	00672							
C00017	WLANSTAF								
C00002	WPOSTDATA	00063	00063	00105	00105				
X00001	WLOG1000	00045							
X00002	WMOHCT	00000							
C00002	WATIO	00025	00137	00137	00147	00151	00151	00165	00455 00455 00464
X00003	WDMWAY	00065	00067	00467					
P00663	WFLCON..	00070	00112	00300	00503	01047			
P01115	WRTIO	00201	00216	00232	00267				
P01114	WSM	00427	00444	00445	00471				
P01117	WSX	C0050	00447	00450	00474				
C00014	WSTKFIL								
C00001	WSUMEX	00034	00130	00131	00132	00142	00143	00456 00456 00461 00461	
P01120	SV	00424	00441	00442	00453	00457	00462	00472 00474	
C00032	WADNEZ								
C00003	WASKZ								
C00024	WIZ								
C00000	WGFILF								
C00007	WGLAZ								
C00010	WGLONZ								
C00004	WGTWULZ								
C00000	WGTWAZ	00034	00042	00043	00060	00060	00142	00410 00410	
C00011	WGTWAZ	00050	00050	00263	00272	00272	00324		
C00001	WTFILF								
C00010	WTPALOC								
C00005	WTPQST	00301	00301	00476	00474				
C00004	WTPHAN								
P00170	WTD0001.	00162							
P00221	WTD0002.	00213							
P00252	WTD0003.	00244							
P00453	WTD0004.	00434							
P00565	WTD0005.	00513							
P00654	WTD0000.	00160							
P00674	WTD0001.	00432							
P00704	WTD0003.	00652							

P00717 UP000004.	00257	00720	00721	00722	00727	00727	00727		
P00731 UP000005.	00642	00732	00733	00734	00737	00737	00737		
P00741 UP000006.	00641	00742	00743	00744	00747	00747	00747		
P00751 UP000007.	00640	00752	00753	00754	00757	00757	00757		
P00761 UP000010.	00320	00404	00762	00763	00764	00777	00777	00777	
P01001 UP000011.	00634	01002	01003	01004	01006	01004	01004		
P01010 UP000012.	00635	01011	01012	01013	01015	01015	01015		
P01017 UP000013.	00634	01020	01021	01022	01024	01024	01024		
P01026 UP000014.	00637	01027	01030	01031	01035	01035	01035		
P01037 UP000015.	00633	01040	01041	01042	01046	01046	01046		
C13500 VALUENEM	00574	00576	00144	00177	00202	00230	00233	00350	00363
P01121 VZ	00135	00140	00144	00177	00202	00230	00233	00350	00363
C00014 V0Z	00441	00442	00445	00577	00150	00152	00464	00465	00466
C00012 VTZ	00470	00147	00150	00150	00150	00152	00464	00465	00466
C00014 VZA	00033	00033	00126	00126	00130	00131	00136	00136	00141
C00017 VZH	00145	00454	00454	00454	00460	00463	00463	00463	00463
C00000 -JINFILE									
X00004 -JANWAY	00302								
P00144 -S000001.	00167								
P00215 -S000002.	00220								
P00244 -S000003.	00251								
P00437 -S000004.	00452								
P00514 -S000005.	00564								
00351 SYMBOLS									

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```

COMMON/PRATCM/ IPKTS(7), ISTRT(3), ILS(3), INMS(3), IPRTNO, NTGS,
1      LPRG, MSET(7)
CEND
C      PRINTNL *****
C
CUSE      EQUVTAR 1JUN71 *****
C
C***** NOTE *****
C      THIS BLOCK IS COMMON / IMPSTOR/ WHERE THE
C      VARIABLES ARE THOSE TO BE OUTPUT ON THE TGTFILE.
C      IN ADDITION TEMPORARY STORAGE AREAS FOR
C      COMPLEX TARGET ELEMENTS AND MULTIPLE TARGET
C      ELEMENTS ARE DEFINED
C
COMMON/ IMPSTOR/ TOTNAMZ, INDEPNZ, DESIGZ, TASKZ, CNTRYLCZ,
1      FLAGZ, TSTMLZ, TGTILZ, TGTLMZ, TGTIAZ, VTZ, MZ, MZ(2),
2      VOZ(2), MZ, EVAZ(3), IAZ(3), IMCLASZ, ICLASSZ, ITPVZ,
3      TADGZ, WISDEZ, WINKILZ, MAXKILZ, MAXCOSZ, INDPFZ, DISTDFZ,
4      DISTGRZ, DISTCNZ(30), ATTACHNZ(30), NFIXZ, MULDATA(4,5),
5      ICKDATA(29, 40)
C
C      TYPE INTEGER DESIGZ, TOTNAMZ
C      TYPE REAL WINKILZ, MAXKILZ
C
C      DIMENSION BLOCK(1600), NLOCK(1600)
C      EQUIVALENCE(BLOCK, TGTNAMZ, NLOCK)
C
C      EQUIVALENCE(VZ, VOZ(1)), (VZ, VOZ(2))
C
C      DIMENSION CKDATA(29, 40)
C      EQUIVALENCE(CKDATA, ICKDATA)
C
COMMON/ STZES/ MDTMUL, MNTAIX, MNSPERT, MTELCH, LINSTOR,
1      LNS1, LNS2
C
CEND      EQUVTAR *****
C
CUSE      ICDUMMY 1JUN71 *****
C
COMMON/ ICDUMMY/ INPUT(10), NVARZ, NAMES(40), INVALU(2,40),
1      INDEX1(40), INDEX2(40), INDEX3(40), MOHE
C
COMMON/ MACHINE/ IREAD, IWRIT, ICDUM, IPUNCH
C
DATA(IOPAD = 60), (IWRIT = 61), (ICOMM = 44), (IPUNCH = 65)
C
COMMON/DEFAULT/ MYNAME(20), MYFORM(20), MYTYPE(20), MYVAL(20),
1      EVAL(20), NDEFLT
C
EQUIVALENCE(MYVAL, EVAL)
C
CEND      ICDUMMY *****
C
IF(IPRTNS(7) .EQ. 0) GO TO 10
WRITE(IWRIT, 1)
1  FCPMATICLINE= TARGET DATA// ITGT TGTNAME INDEPNZ DESIG IMCLA
ISS ICLASS ITYPE VALUE WINKILL MAXKILL ITGT*)

```

```

10 MYIDENT = TMSCHATCH
   ITP = TMTAR
   CALL SETREAD
   MYIDENT = SMTGTFILF
   ITP = TGTFILE(1)
   MYLENGTH = TGTFILE(2)
   CALL SETWRITE

```

C

```

   NTS = NTGTS
   DO 1000 I = 1, NTS
     NTGS = I
     NORMALIZE TGTFILE

```

C

```

   ITP = TMTAR
   CALL RDARRAY(PLCK, LNG2)
   VTZ = VTZ * RATIO
   VZA = VZA * RATIO
   VTA = VTZ - VZA
   IPNTNO = 7
   CALL PRINTDAT
   ITP = TGTFILE(1)
   CALL RDARRAY(PLCK, LNG2)

```

C

```

1000 CONTINUE
   ITP = TMTAR
   CALL TERTAPE
   ITP = TGTFILE(1)
   CALL TERTAPE
   RETURN
END

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5.475 NORMALZ

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

NORMALZ

MASTER  
OPTION  
FILES  
NONFILE  
ITP  
MYIDENT  
TWOHQ  
MYLABEL  
PRINTCTL  
INPSTOR  
SIZES  
INDUMMY  
MACHINE  
DEFAULT

00137  
00030  
00027  
00013  
00020  
00006  
00001  
00001  
00001  
00010  
00010  
00032  
03100  
00007  
00374  
00004  
00121

IDENT

NORMALZ

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EXTERNAL SYMBOLS

TEND.  
ORQMCT.  
SETHEAD  
SETWRITE  
ROADWAY  
PRINTOAT  
WRAHAY  
TERMTAPE  
STM.

5.ATS NORMALZ

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EC

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00012	ALOCGSD								
00006	ALOCYAP								
00100	ATTACDZ								
00002	BASEFILE								
00133	HEGIM.	00133							
00000	BLOCK	00074	00114						
00004	CATWVLCZ								
00003	CHPMT.	00046							
00207	CAUATA								
00002	RESI6Z								
00001	DICT.	00037	00042	00045	00053	00063	00075	00111	00115 00125 00131
00042	DISTC0Z								
00040	DIST0FZ								
00041	DIST0GZ								
00134	ENDING.	00033	00132						
00016	EVENYAPF	00134							
00000	EXIT.								
00003	FIAPFILE								
00005	FLAGZ								
00003	F00MAT.	00044	00054						
00074	FVAL								
00021	FVAZ								
00045	GG00000.	00040							
00014	-Z	00044	00070	00117					
00135	I								
00000	IC-CHANGE								
00030	ICLASSZ								
00002	IC000	000002							
00020	IC000								
00001	IC000								
00001	IC000								
00027	IC000								
00001	IC000								
00027	IC000								
00000	IC000								
00031	IC000								
00012	IC000								
00203	IC000								
00253	IC000								
00323	IC000								
00001	IC000								
00007	IC000								
00005	IC000								
00003	IC000								
00037	IC000								
00133	INITIAL.	00033							
00000	INITIAL								
00003	INITIAL								
00015	INITIAL								
00020	INITIAL								
00000	INITIAL								
00003	INITIAL								
00000	INITIAL								
00002	INITIAL								
00007	INITIAL								
00000	INITIAL								

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SATS NORMAL7

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C00000	LTWORD	00127		
C00001	LTWRT	C00001	00037	00037
P00046	.IP	00036		
P00117	.1000			
P00036	.100001			
P00037	.100002	00035		
P00003	.1	00043		
P00026	.100000	00044		
P00027	.100001	00054		
C00004	LINSTR			
C00005	LNGL			
C00006	LMG2	00076	00114	
C00036	MAXCOSZ			
C00035	MAXKILZ			
C00001	MDATCX			
C00000	MDATMUL			
C00034	MINKILZ			
C00033	MISQEZ			
C00373	MORE			
C00022	MPRO			
C00023	MSET			
C00004	MSLTIME			
C00002	MSPERMT			
C00003	MTELMCM			
C00137	MULDATA			
C00003	MYCOMM			
C00024	MYFORM			
C00000	MYFORMT			
C00000	MYIDENT			
C00002	MYLNKTH	00047	00047	00055
C00000	MYNAME	00061	00061	
C00001	MYSECP			
C00050	MYTYPE			
C00074	MYVAL			
C00013	MZ			
C00023	NALERT			
C00013	NAMES			
C00016	NASMTYPE			
C00010	NBNDRY			
C00022	NCLASS			
C00026	NENTRY			
C00021	NCOMPLEX			
C00004	NCORR			
C00025	NCORTYPE			
C00120	NDEFLT			
C00011	NOESRFG			
C00005	NDPEN			
C00136	NFIXEZ			
C00012	NFIXREQ			
C00013	NG			
C00013	NGROUP			
C00020	NKZ			
C00000	NLOCK			

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P00030 NORMALZ 00030  
 C00023 HCTHER  
 C00015 NPAYLOAD  
 C00006 NRECOVER  
 C00007 NREF  
 C00011 NREG  
 C00003 NRPT  
 C00020 NTAKRAS  
 C00021 NTGS  
 C00024 NTGS  
 C00014 NTOTASE  
 P00136 NTS  
 C00012 NTYPE  
 C00012 NVARS  
 C00017 NNOTYPE  
 C00017 PLANTAPE  
 C00002 POSTOATA  
 X00006 PRINTOAT  
 X00002 QBDICT.  
 C00002 RATIO  
 X00005 ROADRAY  
 X00003 SETHEAD  
 X00004 SETWRITE  
 X00011 STM.  
 C00014 STRKFL  
 C00032 TARDEZ  
 C00003 TASKZ  
 C00024 TAZ  
 X00010 TERHTAPE  
 C00000 TGFILE  
 C00007 TGILAZ  
 C00010 TGLONZ  
 C00006 TGTMLZ  
 C00000 TGTNAMZ  
 C00011 TGTNAZ  
 X00001 TMEND.  
 C00001 TINFILE  
 C00010 TMPALOC  
 C00005 TMPST  
 C00004 TMPAR  
 P00120 TS00001.  
 C00000 TWORD  
 C00016 V0Z  
 C00012 VIZ  
 C00016 VZA  
 C00017 VZB  
 C00000 WINFILE  
 X00007 WRARRAY  
 P00070 WS00001.  
 00234 SYMBOLS

00071 00071  
 00064 00064  
 00065 00120

00110 00031  
 00100 00100  
 00074 00102  
 00052 00103  
 00062 00102  
 00061 00103

00124 00130  
 00056 00056  
 00060 00060  
 00060 00126  
 00126 00126

00044  
 00050 00050  
 00057 00072  
 00050 00122  
 00057 00122  
 00050 00122

00077 00077  
 00102 00103  
 00105 00104  
 00105 00105

00114 00121  
 00121 00121

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SUBROUTINE PRINTDAT
  CSUBR      PRINTAT 1JUN71 *****
  C          PRINT SUBROUTINE FOR THE PREALLOCATOR *****
  CUSE      MASTER 1JUN71 *****
  C          COMMON/MASTER/IMDATE,INENTNU,ISIDE,NRPTI,NCORR,NOPEN,NRECOVER *****
  C          1,NMFF,NMNDHY,NMREG,NMGRP,NMOTBASE,NMLOAD,NMSTY,NMMDTYPE *****
  C          2,NANKHAS,NCOMPLEX,NCLASS,NALERT,NTGTS,NMORTYPE,NMNTRY *****
  C          EQUIVALENCE (NMGROUP,NG), (NALERT,NOTHER) *****
  CEND      MASTER *****
  CUSE      TAPFS 1JUN71 *****
  C          COMMON/FILES/IGFILE(2),IASFILE(2),MSLTIME(2), *****
  C          1 ALOCTAN(2),TMPALOC(2),ALOCGRP(2),STRNFIL(2), *****
  C          EVENTAPE,PLANTAPE *****
  C          TYPE INTEGER IGTFILE, HASFILE, MSLTIME, ALOCTAN, *****
  C          1 TMPALOC, ALOCGRP, STRKFIL, EVENTAPE, PLANTAPE *****
  C          COMMON/NOVFILE/ MINFILE, TINFILE, POSTDATA, FIXFILF, TMYPTAR *****
  C          1 TMYPOST *****
  C          TYPE INTEGER MINFILE, TINFILE, POSTDATA, FIXFILE, TMYPTAR, TMYPOST *****
  C          TAPFS *****
  C          OPENHFF 1JUN71 *****
  C          COMMON/BFFNREF/PLINK(50),OPLAT(50),NPLONG(50),NPLAT(20), *****
  C          1 NPLONG(20),NOPEN,NREF *****
  C          TYPE INTEGER PLINK *****
  C          OPENHFF *****
  C          BOUNDARY 1JUN71 *****
  C          COMMON/BOUNDARY/ RPLINK(200), BPLAT(200), BPLONG(200), *****
  C          1 RPZONE(200), NEXTZONE(200), MBNDRY *****
  C          TYPE INTEGER RPLINK,RPZONE *****
  C          BOUNDARY *****
  C          WPNREG 1JUN71 *****
  C          COMMON/WPNREG/CCREL(20),MNEG *****
  C          WPNREG *****
  C          WPNDATA 1JUN71 *****
  C          COMMON/WPNDATA/RANGE(R0),CEP(R0),SPEC(R0),ALENTDLY(R0), *****
  C          1 NALRTDLY(40), RANGEVEC(R0), ICLASS(R0), RANGERE(80), *****
  C          2 REL(R0),IRECODE(R0),IPENMODE(R0),ISIMTYPE(80), *****
  C          3 FUNCTION(R0),NWPNS(200),NVENGRP(200),MLAT(200), *****
  C          4 MLONG(200),IMEG(200),ITYPE(200),IALERT(200),SRL(200), *****
  C          5 IDEFUEL(200),YIELD(200),REPTIME(200),DISTAC(200,30), *****
  C          6 MTYPE,NMGROUP,MDESREG *****
  C          DIMENSION IPAY(200),MYFIXD(5000),MYDEXST(5000),OUMAR(10000) *****
  C          TYPE REAL NALRTDLY *****
  C          TYPE INTEGER FUNCTION *****
  C          EQUIVALENCE (IPAY,IREFUEL), (MG,MGROUP) *****
  C          EQUIVALENCE (MYFIXD,RANGE,OUMAR), (MYDEXST,OUMAR(5001)) *****
  C          WPNDATA *****
  CEND      WPNDATA *****

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CUSE C      ICUMMY 1JUN71 *****
COMMON/ICUMMY/ INPUT(10), NVARS, NAMES(40), INVALU(2,40),
1 INDEX1(40), INDEX2(40), INDEX3(40), MORE
C      COMMON/ MACHINE/ IREAD, IWRIT, ICUMM, IPUNCH
C      DATA(IREAD = 60), (IWRIT = 61), (ICUMM = 44), (IPUNCH = 65)
C      COMMON/DEFAULT/ MYNAME(20), MYFORM(20), MYTYPE(20), MYVAL(20),
1 FVAL(20), NOEFLT
C      EQUIVALENCE (MYVAL, FVAL)
C      ICUMMY *****
CEND PAYLOAD 1JUN71 *****
COMMON/PAYLOAD/NOROMB1(40), IWHDI(40), NOBOMB2(40), IWHDI2(40),
1 NASM(40), IASH(40), NCM(40), NDECOYS(40), MADECOYS(40), IMIRV(40)
2 *PAYLOAD
C      EQUIVALENCE (NP, MPAYLOAD)
CEND PAYLOAD *****
CUSE ASHTABLE 1JUN71 *****
COMMON/ASHTABLE/IWDASH(20), RANGEASH(20), RELASH(20)
1 CEPASH(20), SPEEDASH(20), MASMTYPE
EQUIVALENCE (MASH, MASMTYPE)
CEND ASHTABLE *****
CUSE WARHEAD 1JUN71 *****
COMMON/WARHEAD/YLD(50), PDUD(50), FFRAC(50), NMUTYPE
WARHEAD *****
COMMON /CORRCHAR/ PCLAT(30), PCLONG(30), PCZONE(30), ZPLAT(30),
1 ZPLONG(30), EYPLAT(30), EYPLONG(30), CRLENGTH(30), KORSTYLE(30),
2 ATTRCORR(30), ATTSUPR(30), HILOATTR(30), DEFHANGE(30),
3 MPRCORR(30), DEFDIST(30,3), ATTPME(30,3), NDATA, LMAX
C      TYPE INTEGER PCZONE
C      TYPE REAL KORSTYLE
C      DIMENSION DIST-C(30), PRATTR(30,3), DISTDEF(30,3)
EQUIVALENCE (DEFDIST, DISTDEF), (PRATTR, ATTRPRE)
EQUIVALENCE (CRLENGTH, DISTRC)
CEND CORRCHAR *****
CUSE HAPPEN 1JUN71 *****
COMMON/HAPPEN/JAPTYPE(250), MAPLAT(250), MAPLONG(250)
1 MAPDIST(250), HRTDT
EQUIVALENCE (LMAPMAX, HRTPT)
CEND HAPPEN *****
CUSE CHAPTER 1JUN71 *****
COMMON/CHAPTER/NOUNT(30), JMAP(30), MOUNT(50), JMAP(50), MCORR
CHAPTER *****
CUSE ITP 1JUN71 *****
COMMON/ITP/ITP *****
CEND ITP *****
CUSE ITPRAT 1JUN71 *****
COMMON/ITP/ITP *****
CEND ITPRAT *****
CUSE ITPRNT *****
CEND ITPRNT *****
CUSE TEMPO 1JUN71 *****

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COMMON/TEMPOR/LT(50),LN(50),JT(50),DT(50)
TYPE REAL LT, LN
TEMPO *****
CUSE 40000 1JUN71 *****
COMMON/HOUND/X1,Y1,X2,Y2,IZM,XR,YR,WZN
1,1711
CEND ROUND *****
CUSE PREALOC *****
COMMON/PPREAL/CPLINK(30),RPLINK(200),WPLAT(300),SPLONG(200),
*ATPLEG(200),DISTEF(50),DISTEG(50),RECLINK(200),RECLAT(200),
*RECLOMATZNO),IMECPCTY(200),INDREC(200),IPEGIN(30),PCTYPE(30),
*ATTMPC(30)
TYPE INTEGER CPLINK,RPLINK,RECLINK,PCTYPE
CEND PREALOC *****
CUSE RFCOVN 1JUN71 *****
COMMON/RFCOVN/MCLAT(50,4),MCLON(50,4),INDHAS(50,4),INDCAP(50,4),
*DISTR(50,4),MCULTX(50),PCHUNK(50)
CEND RECVR *****
CUSE IMPSTOR 1JUN71 *****
COMMON/IMPSTOR/BLCK(1400)
C
C DIMENSION NLOCK(1400)
EQUIVALENCE(BLOCK,NLOCK)
C
COMMON /SIZE/ MDATEUL, MDATEX, MSEPMT, MTELWCM, LINSTOR,
1 LRG1, LMG2
C
CEND IMPSTOR *****
CUSE PRINTCTL 1JUN71 *****
COMMON/PRINTC/PL/IFPHTSW(7),IISTR(3),ILST(3),INMUS(3),IPRXTNO,NTGS,
*PRQR,MSFI(7)
CEND PRINTCTL *****
C PRINTS DATA DESIGNATED BY REQUESTS 1, 3, 5, AND 7
GO TO (109, 110, 120, 110, 125, 110, 150), IPRXTNO
PRINTS FROM MOUNTING
C 109 IF(ILPHTSW(1).EQ.0)110,111
110 RETURN
111 CONTINUE
WRITE(IWRIT, 116)
116 FORMAT('//Z24ZGM PENETRATION COMMONR DATA//9X,8HCORRIDOR,6X,
14,1X,4MLONG,6X,3PLAT
1, 7X,4MLONG,6X,6HZONE,6X,4MTYPE,6X, 49HNCORSTYLE MLODATR DEFKA
2NCE ATTHSUPP ATTRCORP 1
WRITE(IWRIT,117)118,PCLINK(1),PCLAL(1),PCLONG(1),PCZONE(1),PCTYPE(1
1)NCORSTYLE(1),MLODATR(1),DEFRANGE(1),ATTQSUFP(1),ATTRCORP(1),
21=1,NCORSH
117 FORMAT(7X,2I10,2F10.4,3I10,6F10.4)
WRITE(IWRIT, 132)
132 FORMAT ('// 9H CORRIDOR,5X,6HINTSEC,7X,6MATTRBC,5X,6HMEGIN)
WRITE(IWRIT, 60) 110,DTDEF(1),ATTMPC(1),IPEGIN(1),I=1,1,NCORR)
60 FORMAT (10,6X,6I2,6X F10.4,5X,16)
WRITE(IWRIT, 200)
200 FORMAT ('//9H CORRIDOR,1X,6HPRCNDDEF,11X,7H01STUEF,10X,6HPRATTR)
WRITE(IWRIT,65)11,NCORDEF(1),DTSTDEF(1,4),PRATTR(1,4)
1 65 FORMAT (16, 5X,15,6X,3(1E12.4,10X,F10.4),/22X)))

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WRITE(IWRIT, 112)
112 FORMAT(//20X,30H DEPENETRATION CORRIDOR DATA //23X,4HLINK,6X,
13HLAT,7X,4HLONG, )
WRITE(IWRIT, 113) (I, RPLINK(I), OPLA(I), OPLONG(I), I=1, NOPEN)
113 FORMAT(7X, 2110, 2F10.3)
WRITE(IWRIT, 300)
300 FORMAT (//8H OPEN PT, 9X, 6HDISTEG, 11A, 4HDISTEF)
WRITE(IWRIT, 70) (I, DISTEG(I), DISTEF(I), I=1, NOPEN)
70 FORMAT ((16X, 2F12.4, 5X))
WRITE(IWRIT, 114)
114 FORMAT(//24X, 13HRECOVERY DATA, //13X, 4HBASE, 6X, 4HLINK, 7X, 3HLAT, 6X,
4HLONG, 3X, 6HCAPACITY, 5X, 5HINDEX)
WRITE(IWRIT, 150) (I, RECLINK(I), RECLAT(I), RECLONG(I), IRECTY(I),
*INDRECT(I), I=1, NRECOVER)
150 FORMAT(7X, 2110, 2F10.3, 2110)
WRITE(IWRIT, 160)
160 FORMAT(// DEPENETRATION CORRIDOR - RECOVERY BASE LINKING// LONGI
18 DEPENETR 6.6E 01// CORRIDOR ORDER LATITUDE LONGI
2100 INDEX CAPACITY DISTANCE)
WRITE(IWRIT, 161) (I, J, RECLAT(I, J), RECLONG(I, J), INDRAS(I, J),
INDCA(I, J), DISR(I, J), J=1, 4), I=1, NOPEN)
161 FORMAT (1X, 15, 19, F13.3, F11.3, F13.3, F11.3, F13.3, F11.3, 18,
1 19, F13.3)
WRITE(IWRIT, 115) (I, RPLAT(I), RPLONG(I), I=1, NREF)
115 FORMAT(//27X, 14H REFUEL POINTS// POINT NO. LATITUDE LONGITUDE//
11X, 15, 4X, F9.4, 1X, F10.4)
WRITE(IWRIT, 118)
118 FORMAT(//27X, 15HROUTING POINTS // POINT NO. LINK LATITUDE
1 LONGITUDE ATTRITION)
WRITE(IWRIT, 119) (I, RPLINK(I), RPLAT(I), RPLONG(I),
1 ATTRLEG(I), I = 1, NRTPT)
119 FORMAT(1X, 15, 4X, 16, 6X, F9.4, 1X, F10.4, F10.5)
WRITE(IWRIT, 134)
134 FORMAT(//27X, 14H SOUNDRY DATA, //
1 LONGITUDE ZONE NEXTZONE)
WRITE(IWRIT, 135) (I, RPLINK(I), RPLA(I), RPLONG(I), RPZONF(I),
1 NEXTZONE(I), I=1, NNDRY)
135 FORMAT(1X, 15, 4X, 16, 6X, F9.4, F11.4, 16, 4X, 15)
RETURN
C PRINT OF WEAPREP COMPUTATIONS
120 CONTINUE
IF (IPRINTS(3).EQ.0) 110, 121
121 WRITE(IWRIT, 122)
122 FORMAT(//25X, 5HGROUP, 21H CORRIDOR DISTAC )
DO 140 IG = 1, NGROUP
IT = ITYPE(IG)
IF (ICLASS(IT).NE.2) GO TO 140
WRITE(IWRIT, 136) IG
DO 124 IC=1, NCCORR
136 FORMAT(18X, 110)
WRITE(IWRIT, 123) IC, DISTAC(IG, IC)
123 FORMAT( 28X, 110, 2X, F10.3)
124 CONTINUE
140 CONTINUE
C PRINTS FROM TGTREP

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125 CONTINUE
   IF (IPRNTSW(5).EQ.0) 110,126
126 IF (INTGS.GE.1)STRT(1),AND,NTGS.LE.1,ST(1),127,110
127 WRITE (IWRIT,124) NTGS, (BLOCK(I), I=1,3), BLOCK(5),
   1 BLOCK(6), BLOCK(7), (BLOCK(I), I=7,9)
128 FORMAT(//10X,'TARGET NO.1,' TGTNAME = 'A8,' INDEXNO = 'I6,'
   IDESIG = 'A5,A2,I1,' TASK = 'A2/20X,' TGTMULT = 'F3.0,' TGTLAT
   2 = 'F10.4,' TGTLONG = 'F10.4)
   N = BLOCK(32)
   WRITE (IWRIT, 129) N, DISTEG(N), BLOCK(34), BLOCK(33)
129 FORMAT(15X,9HINDYPEN = 13,10H DISTEG = F10.4,10H DISTDG = F10.4,
   110H DISTDF = F10.4)
   WRITE (IWRIT, 130)
130 FORMAT(//25X,'ICORR DISTCO AIRCD=')
131 WRITE (IWRIT, 131) (I, BLOCK(I+34), BLOCK(I+64), I = 1, NCORR)
131 FORMAT(20X,110,2F10.4)
   RETURN
C PRINT OF CHANGED PLANNING FACTORS
150 CONTINUE
   IF (IPRNTSW(7)) 151, 110, 151
151 IF (INTGS.GE.1)STRT(3),AND,NTGS.LE.1,ST(3), 152, 110
152 WRITE (IWRIT, 153) NTGS, (BLOCK(I), I = 1,3), BLOCK(5), BLOCK(6),
   1 BLOCK(24), BLOCK(25), BLOCK(26), BLOCK(111), BLOCK(29),
   2 BLOCK(30), NTGS
153 FORMAT(1X,14,2X,A8,16,2X,A5,A2,11,2X,A8,3X,12,3X,A8,
   1 3(1X,F9.4),2X,14)
   RETURN
END

```

## IDENT PRINTCAT

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

PRINTCAT	IDENT	PRINTCAT
MASTER	01750	
FILES	00051	
NOMFILE	00027	
OPENREF	00020	
HOUNMAY	00004	
WPNREG	00300	
WPNDATA	01751	
IOUNMAY	00025	
MACHINE	23420	
DEFAULT	00374	
PAYLOAD	00004	
ASMTABLE	00121	
VARHEAD	00621	
HAPPEN	00145	
CHAPTER	00227	
ITP	01132	
IFTPRNT	01751	
TEMPO	00241	
BOUND	00001	
PREALOC	00012	
RECONV	00000	
IMPSTOR	00011	
SIZES	02114	
FRNTCTRL	03100	
	00007	
	00032	

## EXTERNAL SYMBOLS

THEND.  
OROOTCT.  
SYN.  
ONSINGL.



5.4TS PRINTOUT

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C00360 ALERTLY	00761	01471	01473	01474	01501	01523	01523	01525
C00012 ALOCOP	00761	01471	01473	01474	01501	01523	01523	01525
C00006 ALOCTAR	00761	01471	01473	01474	01501	01523	01523	01525
C00370A ATTACOR	00761	01471	01473	01474	01501	01523	01523	01525
C00416 ATTACOR	00761	01471	01473	01474	01501	01523	01523	01525
C01166 ATTALFG	00761	01471	01473	01474	01501	01523	01523	01525
C00774 ATTAPRE	00761	01471	01473	01474	01501	01523	01523	01525
C00454 ATTASUPP	00761	01471	01473	01474	01501	01523	01523	01525
C00002 HASFILE	00761	01471	01473	01474	01501	01523	01523	01525
P01731 HEGIN.	00761	01471	01473	01474	01501	01523	01523	01525
C00000 HLOCK	00761	01471	01473	01474	01501	01523	01523	01525
C00310 HPLAT	00761	01471	01473	01474	01501	01523	01523	01525
C00000 HPLINK	00761	01471	01473	01474	01501	01523	01523	01525
C00620 HPLONG	00761	01471	01473	01474	01501	01523	01523	01525
C01130 HPZONE	00761	01471	01473	01474	01501	01523	01523	01525
C00000 CMREL	00761	01471	01473	01474	01501	01523	01523	01525
C00120 CFP	00761	01471	01473	01474	01501	01523	01523	01525
C00074 CERASH	00761	01471	01473	01474	01501	01523	01523	01525
P01633 CNVRT.	00761	01471	01473	01474	01501	01523	01523	01525
P00003 CCFMT.	00761	01471	01473	01474	01501	01523	01523	01525
C00322 CMLENTH	00761	01471	01473	01474	01501	01523	01523	01525
C00644 DEFHIST	00761	01471	01473	01474	01501	01523	01523	01525
C00550 DEFRRNGE	00761	01471	01473	01474	01501	01523	01523	01525
P00001 UICI.	00761	01471	01473	01474	01501	01523	01523	01525
C006250 DISTAC	00761	01471	01473	01474	01501	01523	01523	01525
C00322 DISTAC	00761	01471	01473	01474	01501	01523	01523	01525
C00644 DISTDEF	00761	01471	01473	01474	01501	01523	01523	01525
C01476 DISTEF	00761	01471	01473	01474	01501	01523	01523	01525
C01560 DISTEC	00761	01471	01473	01474	01501	01523	01523	01525
C01440 DISTR	00761	01471	01473	01474	01501	01523	01523	01525
C00062 DISTR	00761	01471	01473	01474	01501	01523	01523	01525
C00000 NPLINK	00761	01471	01473	01474	01501	01523	01523	01525
C00144 NPLONG	00761	01471	01473	01474	01501	01523	01523	01525
C00225 UT	00761	01471	01473	01474	01501	01523	01523	01525
C00000 QUMAP	00761	01471	01473	01474	01501	01523	01523	01525
P01733 ENDING.	00761	01471	01473	01474	01501	01523	01523	01525
C00226 ENTLAT	00761	01471	01473	01474	01501	01523	01523	01525
C00264 ENTLONG	00761	01471	01473	01474	01501	01523	01523	01525
C00016 EVERTAPE	00761	01471	01473	01474	01501	01523	01523	01525

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P00000 EXIT.	01734						
C00144 FFRAC							
C00003 FIXFILE							
P00003 FORMAT.							
C01700 FUNCTION							
C00074 FVAL							
P00676 G000000.	00670						
P00735 G000001.	00677						
P00744 G000002.	00736						
P00772 G000003.	00745						
P01001 G000004.	00773						
P01040 G000005.	01002						
P01047 G000006.	01041						
P01074 G000007.	01050						
P01103 G000010.	01075						
P01127 G000011.	01104						
P01136 G000012.	01130						
P01165 G000013.	01137						
P01174 G000014.	01166						
P01232 G000015.	01175						
P01256 G000016.	01233						
P01265 G000017.	01257						
P01313 G000020.	01266						
P01322 G000021.	01314						
P01351 G000022.	01323						
P01364 G000023.	01356						
P01410 G000024.	01400						
P01427 G000025.	01415						
P01510 G000026.	01452						
P01530 G000027.	01513						
P01537 G000030.	01531						
P01563 G000031.	01540						
P01631 G000032.	01575						
C01356 MAPDIS							
C00772 MAPLAT							
C00764 MAPLONG							
C00512 MILOATTR							
P01740 I							
	00723	00707	00711	00727	00752	00755	00757
	00704	01055	01060	01062	01066	01111	01114
	01032	01157	01202	01205	01224	01116	01121
	01151	01305	01330	01333	01335	01144	01147
	01300	01545	01550	01552	01555	01243	01250
	01503					01273	01276
						01461	01466
						01476	01500
						01606	01645
						01611	
	00763	01421	01427	01723			
	01411	01374					
	C00002						
	01444						
	01567						
	01365	01370	01404	01433	01710		
	00656						
C04300 IALERT							
C00310 IASH							
C03612 IREGIN							
P01741 IC							
C00740 ICLASS							
C00002 ICOMH							
C00001 IDENTNO							
P01446 IF00001.							
P01571 IF00002.							
C00000 IFYPRNT							
P01742 IG							
P01743 IGOTO.							

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10

P01433	.140	01374
P01544	.150	02663
P01586	.151	01565
P01574	.152	01572
P00146	.112	01044
P00171	.113	01053
P00223	.114	01133
P03346	.115	01236
P00003	.116	00673
P00050	.117	07702
P00374	.118	01262
P00414	.119	01271
P00464	.122	01361
P00503	.123	01420
P00511	.124	01455
P00561	.129	01514
P00604	.130	01534
P00615	.131	01543
P00057	.132	00741
P00427	.134	01317
P00450	.135	01324
P00476	.136	01403
P00255	.150	01142
P00622	.153	01630
P00263	.160	01171
P00321	.161	01200
P00110	.200	00776
P00176	.300	01100
P00076	.60	00750
P01127	.65	01005
P00211	.70	01107
P01745	J	01211
C00000	JAPTYPE	01221
C00156	JMAP	01675
C00144	JT	
C00360	KOPSTYLE	00721
C00000	KOUNT	00721
P01746	L	01017
C01750	LMAPMAX	01026
C00004	LINSTOR	01661
C01131	LMAX	
C00082	LN	01030
C00005	LNG1	
C00004	LNG2	
C00000	LT	
C00144	MAS*	
C00144	MASPTYPE	
C01750	MRNDY	
C00240	WCRP	
C00001	WDATCK	
C00000	WDATMUL	
C22032	WDESBEG	
C00276	WDPEN	
C22031	M6	

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C00024	NTGTS	01601	01625	01625					
C00014	NTOTBASE								
C00012	NTYPE								
C00012	NVARS								
C00230	NVEMGRP								
C00017	NMMOTYPE								
C00200	NMPAS								
C00007	NZ4								
P01637	P00000.0	01642							
P01653	P00001.0	01656							
P01667	P00002.0	01672							
P01703	P00003.0	01705							
P01715	P00004.0	01720							
C00000	PCLAT	00713							
C00000	PCLINK	00711	00712						
C00036	PCLCRG	00715							
C00360	PCTYPE	00717							
C00074	PZONE	00716							
C00062	POUG								
C00017	PLANTAPE								
C00002	POSTDATA								
C00776	PRATT	01025							
P00651	PRINTDAT	00651							
X00002	JAWDICT.	00000	00652						
X00004	JASINGL.	01632							
C00000	RANGE								
C00024	RANGEASM								
C00020	RANGERECD								
C01060	RANGERECD								
C00000	RECLAT	01213	01214						
C02032	RECLINK	01215							
C00310	RECLON								
C01750	RECLTX								
C02152	RECLAT	01153							
C01642	RECLINK	01151	01152						
C02462	RECLONG	01154							
C05740	RETIME								
C01200	REL								
C00050	RELASM								
C00226	RELAT	01245	01246						
C00252	REPLONG	01247							
C00346	REPLAT	01302							
C00036	REPLINK	01300	01301						
C00656	REPLONG	01303							
C04610	SRL								
C00240	SPEED								
C00120	SPEEDASM								
X00003	STM.								
C00014	STRKFIL	00671	00700	00737	00746	00774	01003	01042	01051
C00000	TGIFILE	01140	01167	01176	01234	01260	01247	01315	01324
X00001	TAEUG.	01453	01514	01532	01551	01576			
		00674	00733	00742	00770	00777	01436	01045	01072
							01101	01125	01134

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01163 01172 01230 01254 01263 01311 01320 01347 01362 01406 01425  
01506 01526 01535 01561 01627

C00001 TIMFILE  
C00010 TMAPALOC  
C00005 TIMPOST  
C00004 TIMTAP  
P00731 TS00001.  
P00754 TS00002.  
P01030 TS00003.  
P01034 TS00004.  
P01070 TS00005.  
P01123 TS00006.  
P01161 TS00007.  
P01226 TS00011.  
P01252 TS00012.  
P01307 TS00013.  
P01345 TS00014.  
P01435 TS00015.  
P01431 TS00016.  
P01557 TS00021.  
P01444 UP00000.

00730 00753 00765 01010 01033 01056 01067 01112 01122 01145  
01203 01225 01241 01251 01274 01306 01331 01344 01462 01467  
01564 01546 01556 01605 01612 01640 01645 01646 01647 01652  
01652 01627 01654 01661 01662 01665 01666  
01020 01222 01670 01675 01676 01677 01701 01702  
01366 01434 01703 01710 01711 01712 01714 01716  
01412 01430 01716 01723 01724 01725 01727 01730

P01600 UP00001.  
P01674 UP00002.  
P01707 UP00003.  
P01722 UP00004.  
C00000 TIMFILE  
C02640 PLAT

C03150 PLONG  
P00707 TS00001.  
P00755 TS00002.  
P01022 TS00003.  
P01012 TS00004.  
P01060 TS00005.  
P01114 TS00006.  
P01147 TS00007.  
P01211 TS00010.  
P01205 TS00011.  
P01243 TS00012.  
P01276 TS00013.  
P01333 TS00014.  
P01370 TS00015.  
P01414 TS00016.  
P01463 TS00017.  
P01500 TS00020.  
P01550 TS00021.  
P01604 TS00022.  
C00000 X1  
C00002 X2  
C00005 X3  
C00001 Y1  
C00003 Y2

00732 00767 00767 01031 01035 01071 01071 01124 01162 01162 01223 01227 01227 01253 01253 01310 01310 01346 01346 01436 01436 01432 01432 01560 01560 01613 01613

5.4TS PRINTOUT

C05430 YIELD  
C00000 YLD  
C00000 YR  
C00132 ZPLAT  
C00170 ZPLONG  
00540 SYMBOLS

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SUBROUTINE RUPRCMP
  CSUBR      ROPRCMP 1JUN71 *****
  C          THIS SURROUTINE READS THE USER INPUT
  C          PARAMETERS FOR THE PRECOMP OPTION
  CUSE       IODUMMY 1JUN71 *****
  C          COMMON/IODUMMY/ INPUT(10), NVARS, NAMES(40), INVAL(2,40),
  C          1 INDEX1(40), INDEX2(40), INDEX3(40), MORE
  C          COMMON/ MACHINE/ IREAD, IWRIT, ICOMM, IPUNCH
  C          DATA IREAD = 60, IWRIT = 61, ICOMM = 44, IPUNCH = 65
  C          COMMON/DEFAULT/ MYNAME(20), MYFORM(20), MYTYPE(20), MYVAL(20),
  C          1 FVAL(20), NDEFLT
  C          EQUIVLFNCE (MYVAL, FVAL)
  C          IODUMMY *****
  C          PLANTYPE 1JUN71 *****
  C          COMMON/PLANTYPE/ INITSTRK,CORMSL,CORROMB
  C          PLANTYPE *****
  C          EXCESS 1JUN71 *****
  C          COMMON /EXCESS/ NEXCESS, PEKROMR, EXNROMR, PEKMIRV, EXKMIRV,
  C          1 PEKMISS, EXNMISS, SRLREAL(200)
  C          EXCESS *****
  C          PRINTCTRL 1JUN71 *****
  C          COMMON/PRINTCTRL/PRINTSM(7),ISTR(3),ILSI(3),INMDS(3),IPRNTNO,NTGS,
  C          1 MPRQ, MSET(7)
  C          PRINTCTRL *****
  C          EQUIVTAR 1JUN71 *****
  C          ***** NOTE *****
  C          THIS BLOCK IS COMMON / INPSTOR/ WHERE THE
  C          VARIABLES ARE THOSE TO BE OUTPUT ON THE TGTFILE.
  C          IN ADDITION TEMPORARY STORAGE AREAS FOR
  C          COMPLEX TARGET ELEMENTS AND MULTIPLE TARGET
  C          ELEMENTS ARE DEFINED
  C          COMMON/ INPSTOR/ TGTNAMZ, INDEXNZ, DESIGZ, TASKZ, CNTRYLCZ,
  C          1 FLAGZ, TGTMLTZ, TGTFLZ, TGTLOMZ, TGTTRZ, VTZ, MZ, HZ(2),
  C          2 VOZ(2), NKZ, FVAZ(3), TAZ(3), INCLASZ, ICLASZ, INTYPZ,
  C          3 TARDZ, MISDZ, MINKILZ, MAXKILZ, MAXCOSZ, INOYPEZ, DISTOFZ,
  C          4 DISTOGZ, OISTGOZ(30), ATTRGOZ(30), NFIXEZ, MULDATA(4,5),
  C          5 ICXDATA(20, 40)
  C          TYPE INTEGER DESIGZ, TGTNAMZ
  C          TYPE REAL MINKILZ, MAXKILZ
  C          DIMENSION BLOCK(1600), NLOCK(1600)
  C          EQUIVALENCE(BLOCK, TGTNAMZ, NLOCK)

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C      EQUIVALENCE(VZA, VOZ(1)),(VZR,VOZ(2))
C      DIMENSION CXDATA(29, 40)
C      EQUIVALENCE (CXDATA, ICXDATA)
C      COMMON/ STZES/ MDATMUL, MDATCX, M$PERMT, MTELCHM, LINSTOR,
1      Lng1, LNG2
C      CENO      EQUIVTAR *****
C      DIMENSION IFORMAT(5)
C      DATA(IFORMAT = 8H(1H0,AR,6H* *.,1H ,8H,* BY *,3HAR))
C      DIMENSION NAMPRINT(3)
C      DATA(NAMPRINT = 7HFIRSTAR, 6HLASTAR, 8HNTOPRINT)
C      INT = 2H1R
C      IF = 4HFR.4
C      IA = 2HAB
C      MPRQ = 7
C      SET UP DEFAULTS FOR PARAMETERS
C      INITSTRK
C      MYNAME(1) = 8HINITSTRK
C      MYFORM(1) = INT
C      MYVAL(1) = 1
C      CORNSL
C      MYNAME(2) = 6HCORNSL
C      MYFORM(2) = IF
C      FVAL(2) = 0.0
C      CORBOMB
C      MYNAME(3) = 7HCORROMB
C      MYFORM(3) = IF
C      FVAL(3) = 0.0
C      PEXROMB
C      MYNAME(4) = 7HPEXROMB
C      MYFORM(4) = IF
C      FVAL(4) = 0.0
C      EXNROMB
C      MYNAME(5) = 7HEXNROMB
C      MYFORM(5) = IF
C      FVAL(5) = 3.0
C      PEXMIRV
C      MYNAME(6) = 7HPEXMIRV
C      MYFORM(6) = IF
C      FVAL(6) = 0.1
C      EXHMIRV
C      MYNAME(7) = 7HEXMIRV
C      MYFORM(7) = IF
C      FVAL(7) = 2.0
C      PEXMISS
C      MYNAME(8) = 7HPEXMISS
C      MYFORM(8) = IF
C      FVAL(8) = 0.0
C      EXNMISS
C      MYNAME(9) = 7HEXNMISS

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 23000  
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 49000  
 50000  
 51000  
 52000  
 53000  
 54000  
 55000  
 56000  
 57000

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C
MYFORM(9) = IF
FVAL(9) = 0.0
C
NDEFLT = 9
DO 10 I = 1, NDEFLT
10 MYTYPE(I) = 7HDEFAULT
C
C
SET UP STANDARD PRINTS
C
DO 20 I = 1, MPRO
20 IPNTSW(I) = 0
DO 30 I = 1, 3
10 ISTR(I) = 1
11 ILS(I) = 5000
30 INDS(I) = LNSI / 2 + 1
IPNTSW(1) = 7
IPNTSW(3) = 7
IPNTSW(5) = 7
DO 40 I = 1, MPRO
40 MSET(I) = 7HDEFAULT
C
C
READ PARAMETER CARDS
C
WRITE(IWRITE,99)
99 FORMAT(=USER INPUT PARAMETER CARDS FOR OPTION PRECOMP=)
100 READ (IREAD,101) INPUT
101 FORMAT(10A8)
WRITE(IWRITE,102) INPUT
102 FORMAT(1X,10A8)
CALL GETVALU(INPUT,NVARS,NAMES,INVALU,INDEX1,INDEX2,INDEX3, MORE)
IF(NVARS) 2000, 2000, 110
INTERPRET INPUT
C
110 DO 1000 I = 1, NVARS
KKK = I
ITEST = NAMES(I)
IAM = ITLE(ITEST, MYNAME, NDEFLT)
IF(IAM) 120, 120, 150
CHECK FOR PRINT OR NO PRINT
120 IF(ITEST = 5HPRINT) 130, 200, 130
130 IF(ITEST = 7HNOPRINT) 140, 300, 140
ERROR = NO MATCH
C
140 WRITE(IWRITE, 141) ITEST
141 FORMAT(//PSA,= UNABLE TO DECIPHER VARIABLE NAME =,AR,=, INPUT REQU
TEST IGNORED=)
GO TO 1000
C
INPUT PARAMETER
150 MYTYPE(IAM) = 6H INPUT
IF(IAM=1) 151, 151, 152
151 MYVAL(I) = NUMGET(INVALU(I,KKK),16)
GO TO 1000
152 DECODE(16, 1001, INVALU(I,KKK)) FVAL(IAM)
GO TO 1000
C
C
PRINT REQUEST
C
200 ITEST = NUMGET(INVALU(I,KKK), 16)

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59000  
60000  
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99000  
100000  
101000  
102000  
103000  
104000  
105000  
106000  
107000  
108000  
109000  
110000  
111000  
112000  
113000

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ITSV = ITEST
IF (ITEST) 1000, 1000, 210
210 IF (ITEST - MPRQ) 220, 220, 1000
220 PRINTSW(ITEST) = 7
MSET(ITEST) = 6H INPUT
IF (ITEST - 4) 1000, 1000, 230
230 I = I + 1
ITEST = ITSU
IF (I - NVANS) 240, 240, 1000
240 IAN = ILE(NAMES(I), NAMPRNT, 3)
IF (IAN) 250, 250, 260
250 I = I - 1
GO TO 1000
C PRINT INFORMATION
260 ITEST = ITEST - 4
KKK = I
GO TO (241, 242, 243), IAN
C FIRST TARGET
261 ISTR(ITEST) = NUMGET(INVALU(1, KKK), 16)
GO TO 230
C LAST TARGET
262 ILST(ITEST) = NUMGET(INVALU(1, KKK), 16)
GO TO 230
C NUMBER OF WORDS TO BE PRINTED
263 INWDS(ITEST) = NUMGET(INVALU(1, KKK), 16)/2 + 1
GO TO 230
C PRINT CANCELLATION
C
C 300 ITEST = NUMGET(INVALU(1, KKK), 16)
IF (ITEST) 1000, 1000, 310
310 IF (ITEST - MPRQ) 320, 320, 1000
320 PRINTSW(ITEST) = 0
MSET(ITEST) = MREMOVED
GO TO 1000
C
C 1000 CONTINUE
1001 FORMAT(F16.0)
IF (MUME) 2000, 2000, 100
C PRINT RESULTS
C
C 2000 WRITE(IWRIT, 2001)
2001 FORMAT(*USER INPUT PARAMETERS FOR OPTION PRECOMP*)
C PRINT REQUESTS
WRITE(IWRIT, 2002)
2002 FORMAT(/25X,* PRINT REQUESTS// * NUMBER STATUS FIRST TARGET LA
1ST TARGET NO. OF WORDS SET BY*)
DO 2010 I = 1, 4
IAI = 240N
IF (IPRNTSW(I), EQ, 0) IAN = 6H OFF
WRITE (IWRIT, 2003) I, IAN, MSET(I)
2003 FORMAT(3X, I2, 4X, A6, 6X, N/A, 10X, *N/A, 11X, *N/A, 6X, A8)
2010 CONTINUE
DO 2020 I = 5, MPRQ

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114000  
115000  
116000  
117000  
118000  
119000  
120000  
121000  
122000  
123000  
124000  
125000  
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169000

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J = I-4
IAM = 240N
IF (IPRINTS(I) .EQ. 0) IAM = 6M OFF
WRITE (IWRIT, 2011) I, IAM, ISTRT(J), ILST(J), INWDS(J), MSET(I)
2011 FORMAT(3X,I2,4X,A5,5X,I5,2(8X,I5),6X,A8)
2020 CONTINUE
WRITE(IWRIT, 2021)
2021 FORMAT(////25X,* OTHER PARAMETERS*)
C
C LOAD PARAMETERS
INITSTRK = MYVAL(1)
CORMSL = FVAL(2)
CORBOMR = FVAL(3)
PEXROHJ = FVAL(4)
EXNROHJ = FVAL(5)
PEXMIHV = FVAL(6)
EXNMIHV = FVAL(7)
PEXMISS = FVAL(8)
EXNMISS = FVAL(9)
C
DO 2100 I = 1, NDEFLT
  IFORMAT(3) = 'YFORMAT(I)
  WRITE(IWRIT, IFORMAT) MYNAME(I), MYVAL(I), MYTYPE(I)
2100 CONTINUE
RETURN
END

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170000  
171000  
172000  
173000  
174000  
175000  
176000  
177000  
178000  
179000  
180000  
181000  
182000  
183000  
184000  
185000  
186000  
187000  
188000  
189000  
190000  
191000  
192000  
193000  
194000  
195000

5.4TS ROPRCMP

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IDENT ROPRCMP

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

ROPRCMP

01060  
00206

100UMAY  
MACHINE 00004  
DEFAULT 00121  
PLANTYPE 00003  
EXCESS 00317  
PRINTCTL 00032  
INPSTOR 03100  
SIZES 00007

EXTERNAL SYMBOLS

THEMD.  
ORGDICT.  
GETVALU  
ITLE  
NUMGET  
TSH.  
DEC.  
STM.  
SLO.  
SLI.  
QNSINGL.

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## 5.4TS RDRPCMP

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P00501	AN00004.	00475	00502	00675	00676	00700	00725	00726	00730	00731	00732	00735
C00100	ATT+CDZ	01007	01010	01011								
P01032	HEGIN.	00757	00757									
C00000	HLOCK	00755	00755									
C00004	CNT+YLCZ	00305	00306	00310	00317	00346	00347					
P01021	CNV+T1.	00362	00375	00410	00456	00637	00650	00657	00703	00740	00752	
C00002	CORHOMR	00477										
C00001	CORWSL											
P01045	COUNT.											
P01013	CRF+T.											
C00207	CKDATA											
X00007	DEC.											
C00002	DESIG7											
P00001	DICT.	00210	00354	00361	00365	00371	00374	00500	00604	00607	00611	00632
		00450	00455	00470	00500	00506	00513	00545	00567	00576	00605	00617
		00644	00647	00653	00656	00672	00702	00722	00737	00746	00751	01004
		01013										
C00042	DISTCOZ											
C00040	DISTOFZ											
C00041	DISTGGZ											
P01034	ENDING.	00211	01017	01032								
C00004	EXMIRV	00757	00767									
P00000	EXIT.	01035										
C00002	EXNBOMB	00763	00763									
C00006	EXNMISS	00773	00773									
C00005	FLAGZ											
P00013	FORMAT.	00212	00214	00215	00220	00225	00232	00237	00244	00252	00260	00266
		00273	00301	00342	00421	00457	00527	00632	00657	00705		
C00074	FVAL	00231	00236	00243	00251	00251	00257	00257	00265	00272	00277	00277
		00504	00504	00754	00756	00756	00756	00760	00760	00762	00762	00764
		00764	00764	00766	00770	00770	00772	00772				
C00021	FVAZ											
X00003	GETVALU	00410										
P00362	GG00000.	00354										
P00375	GG00001.	00363										
P00410	GG00002.	00376										
P00456	GG00003.	00446										
P00507	GG00004.	00476										
P00550	GG00005.	00642										
P00557	GG00006.	00651										
P00703	GG00007.	00670										
P00740	GG00010.	00720										
P00752	GG00011.	00744										
P01014	GG00012.	01002										
C00014	HZ											
P01046	I	00302	00305	00313	00316	00324	00324	00343	00346	00422	00423	00426
		00534	00535	00537	00542	00552	00553	00557	00562	00560	00562	00574
		00677	00703	00705	00707	00712	00724	00733	00740	00775	00776	01014
P01047	IA	00215										
P01050	IAM	00435	00460	00462	00503	00550	00561	00662	00666	00676	00711	00716
		00726										
C00030	ICLASSZ											
C00002	ICOMW	C00002										

## 5.4TS RDRRCMP

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CODE	DATA	00214	00227	00234	00241	00246	00254	00262	00270	00275
C00207	ICXDATA									
P01051	IF	00013	01000	01005						
P00003	IFORMAT									
P01052	IGOTO.									
C00027	IMCLASZ									
C00031	INTYPEZ									
C00012	ILST	00330	00600	00601	00731					
P01022	IN00003.	00465	00474	00510	00564	00573	00602	00614	01030	
C00203	INDEX1	00414								
C00253	INDEX2	00414								
C00323	INDEX3	00415								
C00001	INDEXZ									
C00037	INCPPEZ									
P01032	INITIAL.	00211								
C00000	INITSTRK	00753	00753							
C00000	INPUT	00372	00405	00412						
P01053	INT	00213	00222							
C00063	INVALID	00413	00466	00471	00475	00501	00511	00514	00565	00570 00574 00577
C00015	INWDS	00603	00606	00615	00620	00732				
C00020	IPRINTNO	00334	00335	00612	00612					
C00000	IPRINTSW	00320	00321	00337	00340	00341	00525	00526	00630	00631 00663
C00003	IPUNCH	00712	00713							
C00000	IREAD	00013	00362	00362						
C00007	ISTR	00326	00327	00371	00572	00727	00730			
P01054	ITEST	00430	00433	00437	00442	00452	00515	00516	00520	00525 00531 00536
X00004	IILE	00555	00556	00571	00600	00611	00621	00623	00630	
P01055	ITSV	00431	00544							
C00001	IWRIT	00515	00536	00353	00375	00375	00445	00445	00641	00641 00650 00656
P00307	.10	C00001	00353	00717	00717	00743	00743	01001	01001	
P00362	.100	00667	00667							
P00634	.1000	00640	00473	00507	00516	00517	00523	00532	00533	00541 00554 00621
P00665	.100001	00456	00626							
P00667	.100002	00622								
P00715	.100003	00664								
P00717	.100004	00714								
P00421	.110	00420								
P00437	.120	00435	00436							
P00442	.130	00441								
P00445	.140	00444								
P00457	.150	00436								
P00465	.151	00463	00463							
P00474	.152	00464								
P00320	.20									
P00510	.200	00440								
P00641	.2000	00417	00417	00637	00640					
P00703	.2010									
P00740	.2020									
P00520	.210									
P01014	.2100									



P00524	.220	00522	00522	00613
P00534	.230	00572	00601	
P00542	.240	00540	00541	
P00552	.250	00550	00551	
P00555	.260	00551		
P00564	.261	00562		
P00573	.262	00563		
P00602	.263	00563		
P00331	.30			
P00614	.300	00443		
P00623	.310			
P00627	.320	00625	00625	
P00350	.40			
P01036	EPASER.	00607		
P00013	..100000	00212		
P00014	..100001	00214		
P00015	..100002	00215		
P00016	..100003	00220		
P00017	..100004	00225		
P00020	..100005	00232		
P00021	..100006	00237		
P00022	..100007	00244		
P00023	..100008	00252		
P00024	..100009	00260		
P00025	..100010	00266		
P00026	..100011	00273		
P00027	..100012	00307		
P00030	..100013	00350		
P00052	..100014	00440		
P00053	..100015	00443		
P00073	..100016	00457		
P00074	..100017	00527		
P00075	..100018	00632		
P00133	..100019	00661		
P00134	..100020	00665		
P00156	..100021	00711		
P00157	..100022	00715		
P00076	..1001	00501		
P00042	..101	00366		
P00045	..102	00401		
P00054	..141	00451		
P00101	..2001	00645		
P00112	..2002	00654		
P00135	..2003	00673		
P00160	..2011	00723		
P00176	..2021	00747		
P00031	..99	00357		
P00471	..Z00001-	00466		
P00514	..Z00002.	00511		
P00546	..Z00003.	00543		
P00570	..Z00004.	00565		
P00577	..Z00005.	00574		
P00606	..Z00006.	00603		
P00620	..Z00007.	00615		

P01056 J	00710	00727							
P01057 KKK	00424	00557	01025						
C00004 LINSTOR									
C00005 LNG1	00331	00331							
C00006 LNG2									
C00036 MAXCOSZ									
C00035 MAXKILZ									
C00001 MOATCX									
C00000 MOATMUL									
C00034 MINKILZ									
C00033 MISOEZ									
C00073 MORE	00415	00637							
C00022 MPRO	00216	00217	00313	00314	00343	00344	00521	00624	00741
	00741								
	00351	00351	00530	00530	00633	00633	00677	00734	00734
C00023 MSET									
C00002 MSPERMT									
C00003 MTELMCM									
C00037 MLDATA									
C00024 MYFORM									
C00000 MYNAME	00223	00223	00230	00230	00235	00235	00242	00247	00255
	00255	00263	00263	00271	00271	00276	00276	00277	00277
	00221	00221	00226	00226	00233	00233	00240	00245	00253
	00253	00261	00261	00267	00267	00274	00274	00285	00285
	00310	00310	00460	00461	01011				
C00050 MYTYPE	00224	00472	00472	00752	00752	01010			
C00074 MYVAL									
C00013 MZ									
C00013 NAMES	00413	00426	00427	00543	00546				
P00010 NAMPRNT	00013	00546							
C00120 NDEFLT	00300	00302	00303	00434	01015	01015			
C00000 NEXCESS									
C00136 NFIXEZ									
C00020 NKZ									
C00000 NLOCK									
C00021 NTGS									
X00005 NUMGET	00467	00512	00566	00575	00604	00616			
C00012 NVAPS	00412	00416	00416	00537	00540	00535	00635		
C00001 PEXBOMB	00761	00761							
C00003 PEXMIRV	00765	00765							
C00005 PEXMISS	00771	00771							
X00002 Q800ICT.	00000	00207							
X00013 QNSINGL.	01020								
P00206 ROPRCMP	00206								
C00007 SBLREAL									
X00012 SLI.	00370								
X00011 SLO.	00403								
X00010 STH.	00355	00377	00447	00643	00652	00671	00721	00745	01003
C00032 TARDEZ									
C00003 TASKZ									
C00024 TAZ									
C00007 TGLAZ									
C00010 TGLJNZ									
C00006 TGTWULZ									
C00000 TGTWAMZ									
C00011 TGTFAZ									
X00001 THEEND.	00360	00373	00406	00454	00505	00646	00655	00701	00736
									00750
									01012

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P00312 TS00001. 00304  
P00323 TS00002. 00315  
P00353 TS00004. 00345  
P00335 TS00005. 00422  
P00741 TS00007. 00706  
P01015 TS00010. 00775  
X00006 TSM. 00364  
P01024 UP00002. 00425  
C00016 V0Z  
C00012 VIZ  
C00016 VZA  
C00017 VZB  
P00307 WS00001. 00311  
P00320 WS00002. 00322  
P00326 WS00003. 00336  
P00350 WS00004. 00352  
P00423 WS00005. 00636  
P00461 WS00006. 00704  
P00707 WS00007. 00742  
P00776 WS00010. 01016  
00332 SYMBOLS

00560 01025 01026 01027 01031 01031

00536  
00742  
01016

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SUBROUTINE ROUTING
  CSUHR   ROUTING 1JUN71 *****
  C ROUTING PHASE OF PREALLOCATION *****
  C CALCULATES DISTRC(ICORR),ATTRC(ICORR),NPRCDEF(ICORR),
  C DISTDEF(ICORR,L),AND PRATT(ICORR,L) FOR ICORR=1,NCORR
  C AND L=LMAX
  C AND DISTEF(IDPEN) AND DISTEG(IDPEN) FOR IDPEN=1,NIDPEN
  C MASTER 1JUN71 *****
  COMMON/MASTER/INDATF,INDENTK,ISIDE,NRTPT,NCORR,NIDPEN,NRECOVER
  1 NREF,NMTRY,NREG,NTYPE,NGROUP,NTOTBASE,NPAYLOAD,NASMTYPE,NMHDTYPE
  2 NTANKBAS,NCOMPLEX,NCLAS,NALEHT,NTGTS,NCORTYPE,NCNTRY
  EQUIVALENCE (NGROUP, NG), (NALERT, NOTHER)
  C MASTER *****
  C DIMENSION IDUM0(1)
  EQUIVALENCE (IDUM0, INDATF)
  C RPKPNT 1JUN71 *****
  COMMON/RPKPNT/ INDBEG(250), TYPENAME(250),
  1 CUMAO(15), RTYPES(15), INDCLAS(15), MTAHTYPE, MTAHCLS
  CEND
  CUSE
  C RPKPNT *****
  C TAPES 1JUN71 *****
  COMMON/FILES/ TGFILE(2),RASFILE(2),MSLTIME(2),
  1 ALOCTAR(2),TMPALOC(2),ALOCGRP(2),STRKFL(2),
  2 EVENTAPE,PLANTAPE
  CEND
  C TYPE INTEGER TGFILE, HASFIL, MSLTIME, ALOCTAR,
  1 TMPALOC, ALOCGRP, STRKFL, EVENTAPE, PLANTAPE
  C COMMON/NOFILE/ WINFILE, TINFILE, POSTDATA, FIXFILE, TMTAN
  1 , TMPOST
  C TYPE INTEGER WINFILE, TINFILE, POSTDATA, FIXFILE, TMPTAR, TMPOST
  CEND
  C TAPFS *****
  C PLANTYPE 1JUN71 *****
  COMMON/PLANTYPE/ INITSTK,CORNSL,CORRORB
  C PLANTYPE *****
  C OPENREF 1JUN71 *****
  COMMON/OPENREF/DPLINK(50),DPLAT(50),NPLONG(50),RFLAT(20),
  *RFLONG(20),MDPEN,MREF
  C TYPE INTEGER DPLINK
  C OPENREF *****
  C BOUNDARY 1JUN71 *****
  COMMON /BOUNDARY/ RPLINK(200), RPLAT(200), RPLONG(200),
  1 RPZONE(200), NEXTZONE(200), MBNDRY
  C TYPE INTEGER RPLINK,RPZONE
  C BOUNDARY *****
  C CORRCHAR 1JUN71 *****
  COMMON /CORRCHAR/ PCLAT(30), PCLONG(30), PCZONE(30), ZPLAT(30),
  1 ZPLONG(30), ENTPLAT(30), ENTPLONG(30), CRLENGTH(30), KORSTYLE(30),
  2 ATTRCORR(30), ATTRSUPP(30), MLOATTR(30), DEFANGE(30),
  3 NPRCDEF(30), DEFNST(30,3), ATTRPRET(30,3), NDATA, LMAX
  C TYPE INTEGER PCZONE

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TYPE REAL KORSTYLE
DIMENSION DISTAC(30),PRATTR(30,3),DISTDEF(30,3)
EQUIVALENCE (DEFDIST,DISTDEF), (PRATTR,ATTRPRE)
EQUIVALENCE (CRLNGTHM, DISTBC)
CEND
CUSE
CORRCHAR *****
HAPPEN 1JUN71 *****
COMMON/HAPPEN/JAPTYPE(250),MAPLAT(250),MAPLONG(250)
1,MAPDIST(250),WRTPY *****
EQUIVALENCE (LHAPMAX, WRTPY)
HAPPEN *****
CHARTER 1JUN71 *****
COMMON/CHARTER/ROUT(30),IMAP(30),MOUNT(50),JMAP(50),MCURR *****
CHARTER *****
ITP 1JUN71 *****
COMMON/ITP/ITP *****
ITP *****
IFTPRNT 1JUN71 *****
COMMON/IFTPRNT/IFTPRNT(10) *****
IFTPRNT *****
MYIDENT 1JUN71 *****
COMMON/MYIDENT/MYIDENT *****
MYIDENT *****
IDUMMY 1JUN71 *****
COMMON/IDUMMY/ INPUT(10), NVARS, NAMES(40), INVALU(2,40),
1 INDEX1(40), INDEX2(40), INDEX3(40), MORE *****
C
COMMON/ MACHINE/ IREAD, I=IT, ICUMM, IPUNCH *****
C
DATA(IGFAD = 40), (IWRIT = 61), (ICOMM = 44), (IPUNCH = 45) *****
COMMON/DEFAULT/ MYNAME(20), MYFORM(20), MYTYPE(20), MYVAL(20),
1 FVAL(20), NOEFLT *****
C
EQUIVALENCE (MYVAL, FVAL) *****
C
IDUMMY *****
TEMPO 1JUN71 *****
COMMON/TEMPO/LI(50),LN(50),JT(50),UT(50) *****
TYPE REAL LT, LN *****
TEMPO *****
BOUND 1JUN71 *****
COMMON/BOUND/X1,Y1,X2,Y2,I2N,XR,YH,NZN *****
1,I2IT *****
BOUND *****
PREALOC 1JUN71 *****
COMMON/PREALOC/PCLINK(30),PPLINK(200),RPLAT(200),RPLONG(200),
*ATTLEG(200),DISTEE(50),DISTEG(50),PCLINK(200),RECLAT(200),
*RECLONG(200),INRECPCTY(200),INRECI(200),I2EGIN(30),PCTYPF(30),
*ATTRC(30) *****
TYPE INTEGER PCLINK,RPLINK,RECLINK,PCTYPE *****
PREALOC *****
RECOVR 1JUN71 *****
COMMON/RECOVR/ACHLAT(50,4),ACHLON(50,4),INOBAS(50,4),INNCAP(50,4),
*OISTR(50,4),ACHLTX(50),PCRLNX(50) *****
RECOVR *****
CEND
CUSE

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CUSE      DIMENSION IREC(4),DIST(4),INDEX(4)
          INPSTOR 1JUN71 *****
          COMMON/INPSTOR/BLCK(1400)
          C
          DIMENSION MLOCK(1600)
          EQUIVALENCE(MLOCK,MLOCK)
          C
          COMMON /SIZES/ M0ATMUL, M0ATCX, M0PERMT, MTELMCH, LINSTOR,
          LING1, LING2
          C
          INPSTOR *****
          PRINTHL 1JUN71 *****
          COMMON/PRINTHL/PRINTSR(7),ISTR(3),ILST(3),INWS(3),IPRINTNO,NTGS,
          MPRU, MSET(7)
          C
          PRINTCTL *****
          DIMENSION CORSTYLE(130)
          EQUIVALENCE (CORSTYLE,CORSTYLE)
          C
          DUMCORP 1JUN71 *****
          COMMON /DUMCORP/ NDUMCORP
          NDUMCORP = NUMBER OF DUMMY CORRIDORS WITH NO ASSOCIATED GEOGRAPHY
          C
          DUMCORP *****
          DATA (NDUMCORP = 2)
          CALL RDPRCMP
          IUMWIN = XMSF(7,INFILE)
          IF(IPRINTSR(2),EO,01601,600
          400 IF(IPRINT(IUMWIN) = 15
          401 CONTINUE
          LTEMP = NDATA * 18
          DO 911 K = 1, LTEMP
          911 PCZORE (K) = -9
          LTEMP = 40LMAP*MAX
          DO 912 K = 1, LTEMP
          912 JAPTYPE(K) = -9
          LTEMP = 2*NDOPEN * 2*NDCORP
          DO 913 K = 1, LTEMP
          913 MYIDENT = 7H*INFILE
          MYIDENT = 7H*INFILE
          ITP = WINFILE % CALL SETREAD
          J=1
          ITP = WINFILE % CALL P00P0RAY(ITP,ITP,1)
          ICHECK = 7H*INFILE
          IF(IITAPTYPE,EO,ICHECK)902,900
          900 WRITE(IWRIT,901) IITAPTYPE
          WRITE (ICOMM, 901) IITAPTYPE
          901 FORMAT(//33H ERROR IN REAPON INPUT FILE TYPE *AH)
          STOP
          902 CALL R00ARRAY(IUMWIN,20)
          CALL R00ARRAY(NDUMCORP,1)
          NDWS = 2*NTAPTYPE
          CALL R00ARRAY(INDBF6,NDWS)
          NDWS = 3*NTAMCLS
          CALL R00ARRAY(CUMNO, NDWS)
          NDWS=NCORTYPE*5
          CALL R00ARRAY(ZPLAT,NDWS)
          NDWS=NCORZ*5
          CALL R00ARRAY(MLOCK,NDWS)

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J=1
DO 904 K=1,NWDS,5
  PCLINK(J)=NLOCK(K)
  PCLAT(J)=RLOCK(K+1)
  PCLONG(J)=RLOCK(K+2)
  PCZONE(J)=NLOCK(K+3)
  PCTYPE(J)=NLOCK(K+4)
904 J=J+1

DO 903 J=1,NCORR
  KCORR=PCTYPE(J)
  K=5*(KCORR-1)+1
  CRSTYLF(J)=ZPLAT(K)
  MILOATT(J)=ZPLAT(K+1)
  DEFRANGE(J)=ZPLAT(K+2)
  ATTRSUPP(J)=ZPLAT(K+3)
  ATTRCORR(J)=ZPLAT(K+4)
903 CONTINUE
  NDS=NRPT*4 $J=1
  CALL RDARRAY(NLOCK,NWDS)
  DO 905 K=1,NWDS,4
    HPLINK(J)=NLOCK(K)
    HPLAT(J)=RLOCK(K+1)
    HPLONG(J)=RLOCK(K+2)
    HPTZONE(J)=RLOCK(K+3)
  905 J=J+1
  NWDS=NDS*4 $J=1
  CALL RDARRAY(NLOCK,NWDS)
  DO 906 K=1,NWDS,3
    DPLINK(J)=NLOCK(K)
    DPLAT(J)=RLOCK(K+1)
    DPLONG(J)=RLOCK(K+2)
  906 J=J+1
  NWDS=NRFCOV*5 $J=1
  CALL RDARRAY(NLOCK,NWDS)
  DO 907 K=1,NWDS,5
    RECLINK(J)=NLOCK(K)
    RECLAT(J)=RLOCK(K+1)
    RECLONG(J)=RLOCK(K+2)
    RECPCTY(J)=NLOCK(K+3)
    INOREC(J)=NLOCK(K+4)
  907 J=J+1
  NWDS=NRZF*2 $J=1
  CALL RDARRAY(NLOCK,NWDS)
  DO 908 K=1,NWDS,2
    RFLAT(J)=RLOCK(K)
    RFLONG(J)=RLOCK(K+1)
  908 J=J+1
  NWDS=NBNDRY*5 $J=1
  CALL RDARRAY(NLOCK,NWDS)
  DO 909 K=1,NWDS,5
    BPLINK(J)=NLOCK(K)
    BPLAT(J)=RLOCK(K+1)
    BPLONG(J)=RLOCK(K+2)
    BPZONE(J)=NLOCK(K+3)
    NEXTZONE(J)=NLOCK(K+4)
  909 J=J+1

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N=1
C INITIALIZE ARRAYS
DO 101 NOX = 1,MDPEN
  DO 100 NOX2=1,4
    RCHLAT(NOX,NOX2)=0
    RCBLON(NOX,NOX2)=0
    INOBAS(NOX,NOX2)=0
    INDCAP(NOX,NOX2)=0
    DISTR(NOX,NOX2)=0
  100 CONTINUE
101 CONTINUE
DO 30 ICORR = 1, NCORR
  DISTBC(ICORR)=0
  ATTRBC(ICORR)=0
  NPRCRDEF(ICORR)=0
  IBEGIN(ICORR) = 0
  DO 10 L=1,LMAX
    DISTDEF(ICORR,L)=0
    PRATTR(ICORR,L)=0
  10 CONTINUE
  IF (ICORR = NDU(CORR)) 30, 30, 15
C CALCULATE DISTBC(ICORR),ATTRBC(ICORR),IBEGIN(ICORR),NPRCRDEF(ICORR),
C   DISTDEF(ICORR,L), AND PRATTR(ICORR,L) FOR ICORR=1,NCORR AND
C   L=1,LMAX
C   BEGIN PROG *****
15 ICC = L = 0 $ IT = 1
  ILL=0
  KRTP=PCLINK(ICORR)
  X1=L(1)=ZPLAT(ICORR)=RPLAT(KRTP)
  Y1=L(1)=ZPLONG(ICORR)=RPLONG(KRTP)
  JT(1)=0
  DT(1)=0
  IZ=PCZONE(ICORR)
  ATTRA=ATTRLEG(KRTP)
  IF (ATTRA) 20,21
21 L=L+1
  ILL=1
20 JRTP=RPLINK(KRTP)
  IF (JRTP) 31,32
31 X2=RPLAT(JRTP)
  Y2=RPLONG(JRTP)
24 DIST=DISF(X1,Y1,X2,Y2)
  DISTBC(ICORR)=DISTBC(ICORR)+DIST
  ATTRA=ATTRLEG(KRTP)
  IF (ATTRA) 39,27
39 IF (L<LMAX) 25,777
25 L=L+1
777 DISTDEF(ICORR,L)=DISTDEF(ICORR,L)+DIST
  PRATTR(ICORR,L)=PRATTR(ICORR,L)+DIST*ATTRA
  ATTRBC(ICORR)=ATTRBC(ICORR)+PRATTR(ICORR,L)
  IF (ICC) 29,26
26 ICC=1
  JT(1) = L
  GO TO 29
27 IF (ICC) 28,29
28 ICC=0

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JT(IT) = L*3
29 IT=IT+1
   LT(IT)=X2
   LN(IT)=Y2
   JT(IT)=0
   DT(IT)=DIST
   KRTP=JRTP
   X1=X2
   Y1=Y2
   GO TO 20
C   CORRIDOR PROCESSED TO ZERO LINK
32 ENILAT(ICORR)=X1
   ENILONG(ICORR)=Y1
41 DO 35 K=1,IT
   LL=K-N-1
   IF(LL.GT.LMAPHAX)300,303
300 WRITE(IWRIT,301)
301 FORMAT(10X,21MAPPEN AKHAY OVERFLOW)
   GO TO 302
303 CONTINUE
   JATYPE(LL) = JT(K)
   HAPDIST(LL)=DT(K)
   HAPLAT(LL) = LT(K)
35 HAPLONG(LL) = LN(K)
302 CONTINUE
   KOUNT(ICORR)=IT
   IHAP(ICORR)=N
   N=N+IT
   IBEGIN(ICORR)=KRTP
   NPRCRDEF(ICORR)=L
   IF(L.EQ.1.AND.ILL.EQ.1136.30
36 NPRCRDEF(ICORR)=0
C   END PROG *****
30 CONTINUE
C   BEGIN DEPEND. SEQUENCE *****
C   WHICH COMPUTES DISTEF,DISTEG AND FILLS /CHARTER/
C   AND / HAPPEN/ WITH DEPEND INFO.
   DO 240 IDPEN = 1, NIDPEN
   DISTEF(IDPEN)=0
   IT=1
   JRTP=DPLINK(IDPEN)
   X1 = LT(1) = DPLAT(IDPEN)
   Y1 = LN(1) = OPLONG(IDPEN)
   JT(1)=0
   GO TO 211
209 JRTP = RPLINK(KRTP)
211 CONTINUE
210 IF(JRTP)210,212
   X2 = RPLAT(JRTP)
   Y2 = RPLONG(JRTP)
   DIST = DISTF(X1,Y1,X2,Y2)
   DISTEF(IDPEN) = DISTEF(IDPEN)+DIST
   IT = IT+1
   LT(IT) = X2
   LN(IT) = Y2
   JT(IT) = 0

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DT(IT) = DIST
KRIPT = JRIPT
X1 = X2
Y1 = Y2
GO TO 209
C FIND RECOVERY BASE
212 NRHAS=0
DO 220 IRE=1,NRECOVER
IF (RECLINK(IRE).EQ.KRIPT) 213,221
213 NRHAS=NRHAS+1
IF (NRHAS.GT.4) 214,217
214 WRITE(IWRIT, 215) IDPEN, IRE
215 FORMAT(44H ***** MORE THAN FOUR RECOVERY BASES, IDPEN ,10,
1 10H IRECOVER,14,7H *****
NRHAS=4 $ GO TO 2200
217 IREC(NRRAS)=IRE
220 CONTINUE
2200 IF (NRHAS.EQ.0) 221,225
C NO RECOVERY BASE FOUND
221 DIST=0
GO TO 226
225 DO 227 IRAS=1,NRRAS
X2=RECLAT(IREC(IRAS))
Y2=RECLONG(IREC(IRAS))
DISTN(IRAS)=DISTF(X1,Y1,X2,Y2)
227 CONTINUE
CALL ORDER(DISTN,INDEXA,NRRAS)
DO 228 IRAS=1,NRRAS
RCPLAT(IDPEN,IRAS)=RECLAT(IREC(INDEXA(IRAS)))
RCCLON(IDPEN,IRAS)=RECLONG(IREC(INDEXA(IRAS)))
INDRAS(IDPEN,IRAS)=INDREC(IREC(INDEXA(IRAS)))
INDCAP(IDPEN,IRAS)=IRECAPTY(IREC(INDEXA(IRAS)))
DISTR(IDPEN,IRAS)=DISTRN(INDEXA(IRAS))
228 CONTINUE
IT=IT+1
LT(IT)=RCPLTX(IDPEN)=RCPLAT(IDPEN,1)
LN(IT)=RCCLNX(IDPEN)=RCCLON(IDPEN,1)
DIST=DISTR(IDPEN,1)
DT(IT) = DIST
JT(IT)=IREC(INDEXA(1))
226 DISTEG(IDPEN) = DISTEF(IDPEN) * DIST
DT(1) = DISTEG(IDPEN)
DO 230 K=1,IT
L = K*N-1
IF (L.GT.LHAPMAX) 304,306
304 WRITE(IWRIT, 301)
GO TO 305
306 CONTINUE
JATYPE(L) = JT(K)
HAPDIST(L) = DT(K)
HAPLAT(L) = LT(K)
HAPLONG(L) = LN(K)
230 CONTINUE
MOUNT(IDPEN) = IT
305 CONTINUE
JHAP(IDPEN) = N

```

FTNS.5

```

N = N+1
240 CONTINUE
C   END DEPENDENCE *****
   IPRNTNO=1
   CALL PRINTDAT
   IF (IPRNT(IUNWIP)) = 0
     END

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291000  
292000  
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297000

IDENT ROUTING

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

ROUTING	01526
MASTER	00062
MARKET	00027
FILES	01063
NOFILE	00020
PLANTYPE	00024
OPENREF	00003
BOUNDARY	00300
CORRCHAR	01751
HAPPEN	01132
CHARTER	01751
IFP	00241
IFTPHNT	00001
MYIDENT	00012
IODUMMY	00001
MACHINE	00374
DEFAULT	00004
TEMPU	00121
BOUND	00310
PREALOC	00011
RECOVER	03744
INPSTOR	02114
SIZES	03100
PHNTCTRL	00007
DUMCURR	00032
	00001

EXTERNAL SYMBOLS

THEND.
Q8QSTOPS
Q8QDICT.
RDPRCMP
SETREAD
WDQRAY
DISTF
ORDER
PRINTOAT
STH.
QNSINGL.

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5.ATS ROUTING

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P01510 IUNWIN	00072	00077	01341			
C00001 IWRIT	C00001	00163	00163	00737	00737	01274 01274 01274
C00010 IZIV						
C00004 IZN	00611	C0611				
P00527 .100						
P00561 .10						
P00530 .101						
P00565 .15						
P00621 .20	00614	00722				
P01035 .209	01075					
P00615 .21						
P01042 .210	01041					
P01040 .211	01034					
P01076 .212	01041					
P01105 .213						
P01111 .214						
P01125 .217	01110	01110				
P01127 .220	01104					
P01132 .2200	01124					
P01134 .221						
P01136 .225	01133					
P01256 .226	01135					
P01162 .227						
P01234 .228						
P01314 .230						
P00632 .24						
P00652 .25						
P00672 .26						
P00676 .27	00644					
P00700 .28	00677					
P00704 .29	00671	00675	00677			
P00737 .300						
P01007 .30	00564	00564	01001	01003		
P00766 .302	00744					
P00747 .303	00736	00736				
P01274 .304						
P01323 .305	01303					
P01304 .306	01272	01273				
P00625 .31	00624					
P00723 .32	00624					
P00757 .35						
P01004 .36	00645					
P00647 .39						
P00730 .41	00074					
P00076 .600	00075					
P00101 .601	00651	00651				
P00655 .777	00161					
P00163 .900	00162					
P00210 .902						
P00314 .903						
P00270 .904						
P00343 .905						
P00372 .906						

## SATS ROUTING

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P00425 .907	00127	00131	00303	00304	01177	01230	01201	01202	01206	01205	01210
P00452 .908	00142				01217	01223	01223	01225	01225	01231	01232
P00505 .909	00157										
P00110 .911	01115										
P00122 .912	00143										
P00137 .913	00167										
P01462 .FRASER.	00127	00131	00303	00304							
P00017 .1100000	00142										
P00020 .1000001	00157										
P00042 .215	01115										
P00033 .301	00143										
P00021 .901	00167										
P01440 .ASTIFF.	01145										
	01210										
	01253										
	00151										
	00451										
	00453										
	00122										
	01324										
	00023										
	00006										
	01067										
	00104										
	00331										
	00747										
	00302										
P01514 KCORR	00137	00140	00767	00770	00717	00774	01035	01072	01103		
C000360 KCRST	00574	00575	00621	00643	00647	00652	00653	00673	00701	00776	01000
P01515 KCRPT	00550	00506	00615	00616							
P01516 L	01267	01271	01366	01414							
	00113	00114	00735	00735	01271	01272					
C01750 LMARMAX											
C00004 LIPSTOR	00734	00734	00751	00761							
P01517 LL	00552	00552	00650	00650							
C01131 LMAX	00603	00604	00712	00712	00760	00740	01031	01031	01065	01066	01245
C00002 LN	01266	01314	01314								
C00005 LMS1											
C00006 LMS2											
C00000 LT	00577	00600	00710	00710	00755	00755	01026	01026	01063	01064	01243
	01243	01312	01312								
	00103	00104	00115	00116	00132	00133					
P01520 LTEMP	00130	00130									
C01750 MANDRY											
C000240 MCOMS											
C000001 MDAICX											
C000000 MDAICUL											
C000274 MDPEN	00125	00126	00532	00532							
C000373 MDPF											
C000074 MOUNT	01222	01322									
C000022 MPHC											
C000277 MREF											
C01750 MPTPT											
C000023 MSET											

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## 5.4TS ROUTING

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P01376	P00004.U	01400							
P01410	P00005.U	01413							
P01424	P00006.U	01426							
P01436	P00010.U	01441							
C00300	PCLAT	00261	00573	00573	00573				
C00000	PCLINK	00257							
C00036	PCLONG	00263							
C00360	PCTYPE	00267	00301	00301	00301				
C00074	PCZONE	00110	00265	00265	00265	00610	00610		
C00017	PLANTAPE								
C00002	POSTDATA	00560	00662	00663	00663	00666	00666		
C00776	PRATTH	01336							
X00011	PRINTOUT	00000							
X00003	Q800ICI.	00206							
X00002	Q85STOPS	01343							
X00013	Q85INGL.	00521	00522	01203	01204	01240	01241		
C00000	RCBLAT	01245							
C02032	RCBLNX	00523	01212	01212	01244	01244			
C00310	RCBLON	01241							
C01750	RCBLTX	00154	00210	00213	00221	00227	00235	00243	00321
X00006	RDARRAY	00451							00352
X00004	RDPRCMP	00066							00401
C02152	RECLAT	00416	00416	01146	01147	01202	01203		00434
C01642	RECLINK	00414	00414	01102	01102	01211	01211		
C02462	RECLONG	00420	00420	01153	01153				
C00226	REFLAT	00447	00447						
C00252	RFLONG	00451	00451						
P00062	ROUTING	00062							
C00346	RPLAT	00336	00336	00575	00576	00626	00626	01043	01043
C00036	RPLINK	00334	00334	00622	00622	01036	01036		
C00656	RPLONG	00340	00340	00601	00602	00630	00630	01045	01045
X00005	SETREAD	00146							
X00012	STM.	00165	00176	00741	01113	01276			
C00014	STRKFIL								
C00000	TGIFILE	00172	00203	00744	01121	01301			
X00001	TMEMD.								
C00001	TNFILE								
C00010	TNPALOC								
C00005	TNPOST								
C00004	TNPTAR								
P00113	TS00001.	00105							
P00125	TS00002.	00117							
P00142	TS00003.	00134							
P00273	TS00004.	00251	00253						
P00315	TS00005.	00276							
P00346	TS00006.	00326							
P00375	TS00007.	00357	00330						
P00430	TS00010.	00406	00361						
P00455	TS00011.	00441	00410						
P00510	TS00012.	00466	00443						
P00532	TS00013.	00514	00470						
P01011	TS00015.	00537							
P00562	TS00016.	00553							

## SATS ROUTING

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P00764	TS00017.	00731	00531	01350	01355	01356	01357	01361	01361											
P01332	TS00020.	01016	01363	01370	01371	01372	01374	01375	01375											
P01130	TS00021.	01100	01010	01376	01403	01404	01405	01407	01407											
P01163	TS00022.	01142	00567	00617	00654	01270	01411	01416	01417											
P01236	TS00023.	01173	01331	01424	01431	01432	01433	01435	01435											
P01317	TS00024.	01264	01171	01437	01444	01445	01446	01450	01451											
C00372	TYPE NAME		00070	00144	00144	00151	00152													
P01354	UP00002.	00513																		
P01367	UP00003.	00517																		
P01402	UP00004.	00536																		
P01415	UP00005.	00551																		
P01430	UP00006.	01015																		
P01443	UP00010.	01140																		
C00060	WINFILE	00070																		
P00110	WS00001.	00112																		
P00122	WS00002.	00124																		
P00137	WS00003.	00141																		
P00255	WS00004.	00272																		
P00301	WS00005.	00314																		
P00332	WS00006.	00345																		
P00363	WS00007.	00374																		
P00412	WS00010.	00427																		
P00445	WS00011.	00454																		
P00472	WS00012.	00507																		
P00515	WS00013.	00533																		
P00521	WS00014.	00527																		
P00540	WS00015.	01012																		
P00556	WS00016.	00561																		
P00732	WS00017.	00765																		
P01017	WS00020.	01333																		
P01101	WS00021.	01131																		
P01144	WS00022.	01162																		
P01176	WS00023.	01235																		
P01265	WS00024.	01320																		
C00000	X1	00600																		
C00002	X2	00627																		
		01062																		
C00005	XR																			
C00001	Y1	00504																		
C00003	Y2	00631																		
		01074																		
C00006	YR																			
C00132	ZPLAT	00237																		
C00170	ZPLONG	00602																		

00527 SYMBOLS

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SUBROUTINE SETFILE
  CSUBR   SETFILE  IJUN71  *****
  C
  C THIS SUBROUTINE READS THE FIXED ASSIGNMENT
  C REQUESTS AND SETS UP A TEMPORARY DISK FILE FOR
  C THE FIXED ASSIGNMENT DATA.
  C
  CUSE    IOUUNMY  IJUN71  *****
  C
  COMMON/IOUUNMY/ INPUT(10), MYARS, NAMES(40), INVALU(2,40),
  1      INDEX1(40), INDEX2(40), INDEX3(40), MORE
  C
  COMMON/ MACHINE/ IREAD, IWRIT, ICOMM, IPUNCH
  C
  C DATA(IREAD = 60), (IWRIT = 61), (ICOMM = 44), (IPUNCH = 65)
  C
  COMMON/DEFAULT/ MYNAME(20), MYFORM(20), MYTYPE(20), MYVAL(20),
  1      FVAL(20), NOEFLT
  C
  C EQUIVALENCE (MYVAL, FVAL)
  C
  CEND     IOUUNMY *****
  C
  CUSE     TAPES  IJUN71 *****
  C
  COMMON/FILES/ TGTFILE(2),RASFILE(2),MSLTIME(2),
  1      ALOCTAR(2),TMPALOC(2),ALOCGRP(2),STRKFIL(2),
  2      EVENTAPE,PLANTAPE
  C
  C TYPE INTEGER TGTFILE, RASFILE, MSLTIME, ALOCTAR,
  1      TMPALOC, ALOCGRP, STRKFIL, EVENTAPE, PLANTAPE
  C
  COMMON/NOVFILE/ WINFILE, TINFILE, POSTDATA, FIXFILE, TMPTAR
  1      , TMPOST
  C
  C TYPE INTEGER WINFILE, TINFILE, POSTDATA, FIXFILE, TMPTAR, TMPOST
  C
  C TAPES *****
  C
  C ITP      IJUN71 *****
  CUSE      COMMON/ITP/ITP *****
  C
  C ITP *****
  C
  C MYIDENT  IJUN71 *****
  CUSE      COMMON/MYIDENT/MYIDENT *****
  C
  C MYIDENT *****
  C
  C TWORD    IJUN71 *****
  CUSE      COMMON /TWORD/ ITWORD *****
  C
  C EQUIVALENCE (TWORD, ITWORD)
  C
  C TWORD *****
  C
  C WPNDATA  IJUN71 *****
  CUSE      COMMON/WPNDATA/RANGE(80),CEP(80),SPEED(80),ALERTDLY(80),
  1      MALRTDLY(80), RANGEDEC(80), ICLASS(80), RANGEREFL(80),
  2      REL(80),IRECMODE(80),IPENMODE(80),ISINTYPE(80),

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3  FUNCTION(80),NWPNS(200),NVEGDP(200),WLAT(200),
4  *LONG(200),IREG(200),ITYPE(200),IALERT(200),SRL(200),
5  *REFUEL(200),YIELD(200),REFTIME(200),DISTAC(200,30),
6  *MYPE,MGROUP,MDESREQ
C
C  DIMENSION IPAY(200),MYFIXD(5000),MYDEXST(5000),DUMAR(10000)
C
C  TYPE REAL NALHTDLY
C  TYPE INTEGER FUNCTION
C
C  EQUIVALENCE (IPAY,IREFUEL),(MG,MGROUP)
C
C  EQUIVALENCE (MYFIXD,RANGE,DUMAR), (MYDEXST,DUMAR(5001))
C
CEND  MPDATA *****
CUSE  CHANGES 1JUN71 *****
COMMON/ CHANGES/ ICLASWAN(2000), ITYPEWAN(2000), IDENTWAN(2000),
1  VALUEWEN(2000), IFUND(2000), MCHANGE, MFIXREQ
C
C  DIMENSION INFIX(10000)
C  EQUIVALENCE(INFIX, ICLASWAN)
C
C  COMMON/ SUMS/ OLDSUM, SUMNEW, NAMCLAS(20), FRCLAS(20)
CEND  CHANGES *****
CUSE  OPTION 1JUN71 *****
COMMON/OPTION/ ICHANGE, IFIXTGT, RATIO, INDOVAL(2), INDMIN(2),
1  INDMAX(2), NDESREQ, NFIXREQ
C
CEND  OPTION *****
CUSE  MASTER 1JUN71 *****
COMMON/MASTER/INDATE,IDENTNO,ISIDE,NRTPT,NCOOR,NOPEN,NRF COVER
1,NREF,NRNDRY,NREG,NTYPE,NGROUP,NTOTHASE,NPAYLOAD,NASKTYPE,NUNDTYPE
2,TANKBAS,NCOMPLEX,NCLASS,NALERT,NTGTS,NCORTYPE,NCNTRY
EQUIVALENCE (NGROUP, NG), (NALERT, NOTHER)
CEND  MASTER *****
C
C  SET UP ARRAYS
C  NTOT = 0
C  IGNORET = .FALSE.
C  IGNOREF = .FALSE.
C  IFIXTGT = -100
C  NDESREQ = 0
C  SET UNIT NUMBER, READ FORMAT, IDENTIFIER
C  MYVAL(1) = IREAU
C  MYVAL(2) = AMRCD TMA8
C  MYVAL(3) = IME
C  MYVAL(4) = BMDESIG/IN
C  MYVAL(5) = THDPX NO.
C  MYVAL(6) = AM TME
C  MYVAL(7) = AMCARD
C  ISAVUN = AMREARER
C  DO 10 I = 1, 5

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10 MYTYPE(1) = 7HDEFAULT
11 WRITE(IWRIT, 99)
99 FORMAT(/, // * USER INPUT PARAMETER CARDS FOR FIAED ASSIGNMENTS. *)
100 READ (IREAD, 101) INPUT
101 FORMAT(10A8)
C
105 CHECK FOR FIRST DATA CARD
105 IF (NUMGET(INPUT, 10)) 300, 105, 300
106 DECODE(5, 106, INPUT) ITEMP
106 FORMAT(2X, A3)
106 IF (NUMGET(ITEMP, 3)) 300, 110, 300
C
110 CALL GETVALU(INPUT, NVARS, NAMES, INVALU, INDEX1, INDEX2, INDEX3,
111 MORE)
111 WRITE(IWRIT, 111) INPUT
111 FORMAT(1X, 10A8)
115 IF (NVARS) 300, 300, 115
115 DO 200 I = 1, NVARS
115 IF (NAMES(I) - 4HTAPE) 130, 120, 130
120 MYVAL(1) = NUMGET(INVALU(2*I-1), 16)
120 ENCODE(18, 121, ISAVUN) MYVAL(1)
121 FORMAT(78)
121 MYVAL(6) = 4HTAPE
121 MYVAL(7) = 4MUNIT
125 MYTYPE(1) = 6H INPUT
125 MYVAL(2) = 8HFILEHAND
125 MYVAL(3) = 3HLEK
125 MYTYPE(2) = 6H INPUT
125 GO TO 200
130 IF (NAMES(1) - 7HHCOTAPE) 150, 140, 150
140 MYVAL(1) = NUMGET(INVALU(2*I-1), 16)
140 ENCODE(18, 121, ISAVUN) MYVAL(1)
140 MYTYPE(1) = 6H INPUT
140 MYVAL(2) = 8HRCU IMAG
140 MYVAL(3) = 1HE
140 MYTYPE(2) = 6H INPUT
140 MYVAL(6) = 4HTAPE
140 MYVAL(7) = 4MUNIT
140 GO TO 200
150 IF (NAMES(1) - 4HDISK) 170, 140, 170
160 MYVAL(1) = INVALU(2*I-1)
160 ISAVUN = MYVAL(1)
160 MYVAL(6) = 4HDISK
160 MYVAL(7) = 4HFILE
160 GO TO 125
170 IF (NAMES(1) - 6HTGTNUM) 200, 180, 200
180 MYVAL(6) = 7H TARGET
180 MYVAL(5) = 6HNUMBER
180 MYTYPE(4) = 6H INPUT
180 IFIXTGT = -100
200 CONTINUE
200 IF (MORE) 300, 300, 100
C
C
C
300 WRITE(IWRIT, 301)
301 FORMAT(/, // * USER INPUT PARAMETER INTERPRETATIONS. *)

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WRITE(IWRITE,302) MYVAL(6), MYVAL(7), ISAVUN, MYTYPE(1)
302 FORMAT(/, DATA INPUT FROM *,A4,1X,A4,1X,A8,*, BY *,A8)
WRITE(IWRITE,303) MYVAL(2), MYVAL(3), MYTYPE(2)
303 FORMAT(/, DATA FORMAT IS *,A8,A3,*, BY *,A8)
WRITE(IWRITE,304) MYVAL(4), MYVAL(5), MYTYPE(4)
304 FORMAT(/, TARGET IDENTIFIERS ARE *,A8,A8,*, BY *,A8)
WRITE(IWRITE,305)
305 FORMAT(/, THE LISTING OF USER INPUT PARAMETER CARDS CONTINUES Q
IN THE NEXT PAGE, USER INPUT PARAMETER CARDS FOR FIXED ASSIGNMENT
25 (CONTINUED) ,*)
INUNIT = MYVAL(1)
DO 310 I = 1, MGROUP
310 NWRNS(I) = 0
NEWCRD = 1
SET UP UNITS
IF(INUNIT .EQ. XARSP(FIXFILE)) FIXFILE = -3
ITP = FIXFILE
MYIDENT = TNSCRATCH
CALL SETWRITE
IF(MYVAL(6) - 4HDISK) 410, 400, 410
DISK FILE
400 MYIDENT = INUNIT
ITP = -3
CALL SETREAD
GO TO 450
410 IF(MYVAL(2) - 8HBCD IMAG) 440, 420, 440
420 IF(MYTYPE(1) - 6H INPUT) 450, 430, 450
BCD TAPE
430 REWIND INUNIT
GO TO 450
FILEHANDLER TAPE
440 ITP = INUNIT
MYIDENT = 8HFIXEDASS
CALL SETREAD
CONST READ NEXT CARD IF NO OPTIONS READ
450 DO 460 I = 1, 5
IF(MYTYPE(1) - 7HDEFAULT) 500, 460, 500
460 CONTINUE
GO TO 600
C READ NEXT CARD
C
500 IF (MYVAL(2) - 8HBCD IMAG) 520, 510, 520
510 READ(INUNIT, 101) INPUT
GO TO 600
520 ITP = INUNIT
CALL RDARRAY(INPUT, 10)
C
600 ITP = FIXFILE
PROCESS CARD
WRITE(IWRITE,111) INPUT
IF(IGNOREF) 8HENDFIXES) 610, 1000, 410
510 IF(IGNOREF) GO TO 500
DECODE(72, 611, INPUT) (MYFORM(1), 1 = 1, 9)
611 FORMAT(A8, A2, 6(A8, 2X), A2)

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151000  
152000

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IF(NEWCRD) 650, 650, 620
620 IF(IGNORE) GO TO 500
ITWORD = NUMGET(MYFORM(1), 10)
IF(ITWORD) 630, 630, 640
630 ITWORD = MYFORM(1)
640 CALL WRWORD
NEWCRD = 0
NDESREQ = NDESREQ + 1
IF(NDESREQ - NDESREQ) 650, 645, 645
645 IGNORE = .TRUE.
WRITE(IWRIT, 646) NDESREQ
646 FORMAT(//IX, 15(1H*)) TOO MANY TARGETS FOR FIXED ASSIGNMENT. OML
IF FIRST *.15.* REQUESTS WILL BE PROCESSED.*/16.* FIX REQUESTS ON
CALL TARGETS AFTER CURRENT TARGET WILL BE IGNORED*)
650 DO 690 I = 3,8
IF(MYFORM(I) - 1H) 660, 690, 660
660 DECODE(3, 661, MYFORM(I)) IG
661 FORMAT(A3)
IG = NUMGET(IG, 3)
IF(IG) 670, 670, 665
665 IF(IG - MGROUP) 680, 680, 670
670 WRITE(IWRIT, 671) IG
671 FORMAT(//IX, 15(1H*)) GROUP NUMBER *.15.* OUT OF RANGE. FIXED
ASSIGNMENT REQUEST IGNORED*)
GO TO 690
680 NMPNS(IG) = NMPNS(IG) + 1
ITWOKO = MYFORM(1)
CALL WRWORD
NTOT = NTOT + 1
IF(NTOT - MFIXED) 690, 685, 685
685 IGNOREF = .TRUE.
WRITE(IWRIT, 686) MFIXED
686 FORMAT(//IX, 15(1H*)) MORE THAN *.16.* FIXED ASSIGNMENT REQUESTS
1. REMAINDER WILL BE IGNORED.*)
GO TO 700
690 CONTINUE
C
C CHECK FOR LAST CARD FOR TARGET
C
IF(MYFORM(9) - 1H) 500, 700, 500
700 NEWCRD = 1
ITWORD = RMENDLOCK
CALL WRWORD
GO TO 500
C
C END OF FIXES
C
1000 ITP = FIXFILE
CALL TERMTAPE
IF(MYVAL(2) - RMFILEHAND) 1200, 1100, 1200
1100 ITP = INUNIT
CALL TERMTAPE
C
C PRINT RESULTS
C
1200 WRITE(IWRIT, 1201)

```



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1201 FORMAT(*,FIXED ASSIGNMENTS REQUESTED BY GROUP*,//* GROUP NO., OF RE
    REQUESTS*)
    DO 1210 I = 1, MGROUP
    IF (NWPNS(I)) 1210, 1210, 1205
    1205 WRITE(I,WRITE, 1206) I, NWPNS(I)
    1206 FORMAT(2X, I3, 7X, I4)
    1210 CONTINUE
    NFIXREQ = NTOT
    WRITE(I,WRITE, 1211) NTOT, NDESREQ
    1211 FORMAT(//% TOTAL NUMBER OF FIXED ASSIGNMENT REQUESTS IS %,15.%, WE
    LAPONS FOR %,15.%, TARGETS%)
    RETURN
    END
209000
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220000
221000

```

## IDENT SETFILE

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

SETFILE.	01452
	00404
IOUUMY	00374
MACHINE	00604
DEFAULT	00121
FILES	00020
NOFILE	00004
ETC	00001
MYIDENT	00001
TRONO	00001
WPRODA	23420
CHANGES	23422
SUMS	00052
OPTION	00013
MASTER	00027

## EXTERNAL SYMBOLS

TWENTY.  
GADUICT.  
NUMGET  
GETVALU  
SETWRITE  
SETWEAN  
RPARRAY  
WPRODU  
TEMTSPF  
HEW.  
TSR.  
DEC.  
STH.  
ENG.  
SLO.  
SLI.  
WASLGL.

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C00360	ALERTPLY	00557	00714	00715	00717	00721	00732	00733	00734	00745
C00012	ALOCGRP	00746	01210	01230	01252	01301	01363	01365	01404	01406
C00004	ALCTAR	00747	00531	00562	00706	00724	00737	00752	00761	01154
P01227	AN00017.	00453	01304	01346	01370	01411				
C00002	HASFILE	01213	00513	00552	00645	00667	00675	00502	00504	00511
P01430	HEGIN.	00474	01306	00555	00541	00607	00614	00620	00702	00705
C00120	CEP	00521	00520	00736	00751	00755	00760	01012	01225	01441
P01413	CNVHT1.	00711	00723	01103	01117	01123	01126	01137	01153	01162
P01440	COUNT.	01050	01074	01103	01116	01123	01126	01137	01153	01162
P00003	CHEXT.	01272	01205	01212	01233	01247	01254	01265	01276	01303
X00014	DEC.	01321	01326	01345	01360	01367	01401	01410		
P00001	DICT.									
C06250	DISTAC									
C00000	DUMAR	00554	00613							
X00016	ENC.	00407	01411	01430						
P01432	ENOING.									
C00016	EVENAPF									
P00000	EXIT.	01433								
C00003	FIXFILE	00775	01004	01005	01005	01112	01112	01323	01323	00564
P00003	FORWAT.	00420	00425	00430	00432	00434	00436	00524	00562	00564
		00564	00570	00577	00621	00623	00625	00627	00631	00633
		00634	00647	00661	00663	00665	01007	01013	01027	01033
		01045	01051	01213	01310	01316	01327			
C00026	FRCLAS									
C01700	FUNCTION									
C00074	FVAL									
X00004	GETVALU	00510								
P00453	GG00000.	00445								
P00466	GG00001.	00454								
C00503	GG00002.	00473								
P00531	GG00003.	00517								
P00562	GG00004.	00553								
P00621	GG00005.	00612								
P00704	GG00006.	00700								
P00724	GG00007.	00707								
P00737	GG00010.	00725								
P00752	GG00011.	00740								
P00761	GG00012.	00753								
P01104	GG00013.	01072								
P01127	GG00014.	01115								
P01154	GG00015.	01134								
P01213	GG00016.	01203								
P01234	GG00017.	01224								
P01255	GG00020.	01245								
P01304	GG00021.	01274								
P01346	GG00022.	01340								
P01370	GG00023.	01356								

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P01411	GG00024.	01377							
P01441	I	00434							
		01061	00535	00540	00577	00636	00654	00671	00763
		01352	01362	01370	01423	01514	01216	01222	01261
									01305
									01552
									01347
C04300	EALENT								
C00000	ICCHANGE								
C00740	ICLASS								
C00000	ICLASHAN								
C00002	ICOMM								
C00001	IDENTNO								
C00640	IDENT4AN								
C00001	IFIXTGT								
C17500	IFOUND								
P01442	IG								
P01443	IGNOREF								
P01444	IGNORET								
C00000	IMDATE								
P01414	IN00002.								
C00203	INDEX1								
C00253	INDEX2								
C00323	INDEX3								
C00007	INUMAX								
C00005	INDMIN								
C00003	INDVAL								
C00000	INFIX								
P01430	INITIAL.								
C00000	INPUT								
P01445	INUT								
C00063	INVALU								
C05120	IPAY								
C01440	IPENCODE								
C00003	IPUNCH								
C00000	IREAD								
C01320	IRECODE								
C05120	IREFUEL								
C03460	IREG								
P01446	ISAVUN								
C00002	ISIDE								
C01560	ISIMTYPE								
P01447	ITEMP								
C00000	ITP								
C00000	ITWORD								
C03770	ITYPE								
C03720	ITYPEMAN								
C00001	IWRIT								
P00441	.10								
P00453	.100								
P01323	.1000								
P01003	.100001								
P01005	.100002								
P01134	.100003								

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P01135	.100004	01133			
P01160	.100005	01157			
P01161	.100006	01157			
P00473	.104	00471			
P00510	.110	00506			
P01333	.1100	01331			
P00534	.115	00533			
P00545	.120	00543			
P01337	.1200	01331			
P01355	.1205				
P01370	.1210	01354			
P00566	.125	00653			
P00577	.130	00543			
P00604	.140	00602			
P00636	.150	00602			
P00643	.160	00641			
P00654	.170	00641			
P00661	.180	00657			
P00671	.200	00576			
P00677	.300	00471			
P00771	.310				
P01017	.400	01016			
P01027	.410	01015			
P01033	.420	01031			
P01037	.430	01035			
P01043	.440	01031			
P01051	.450	01026			
P01061	.460	01057			
P01065	.500	01057			
P01071	.510	01067			
P01105	.520	01067			
P01112	.600	01064			
P01132	.610	01131			
P01156	.620				
P01157	.630	01165			
P01171	.640	01166			
P01201	.645	01177			
P01213	.650	01155			
P01222	.660	01221			
P01241	.665				
P01244	.670	01240			
P01256	.680	01243			
P01272	.685	01271			
P01305	.690	01221			
P01314	.700	01304			
P01434	.ERASER.	01312			
P00003	..100000	01000			
P00004	..100001	00420			
P00005	..100002	00422			
P00006	..100003	00424			
P00007	..100004	00426			
P00010	..100005	00430			
P00011	..100006	00432			
P00012	..100007	00434			
		00441			

P00042	..10000R	00562
P00046	..100009	00562
P00047	..100010	00564
P00050	..100011	00566
P00051	..100012	00570
P00052	..100013	00572
P00053	..100014	00574
P00054	..100015	00601
P00055	..100016	00621
P00056	..100017	00623
P00057	..100018	00625
P00060	..100019	00627
P00061	..100020	00631
P00062	..100021	00633
P00063	..100022	00640
P00064	..100023	00647
P00065	..100024	00651
P00066	..100025	00656
P00067	..100026	00661
P00070	..100027	00663
P00071	..100028	00665
P00177	..100029	01007
P00200	..100030	01014
P00201	..100031	01030
P00202	..100032	01034
P00203	..100033	01045
P00204	..100034	01056
P00205	..100035	01064
P00206	..100036	01130
P00232	..100037	01220
P00335	..100038	01311
P00336	..100039	01314
P00337	..100040	01330
P00026	..101	00457
P00031	..104	00476
P00035	..111	00522
P00340	..1201	01343
P00355	..1204	01361
P00043	..121	00554
P00363	..1211	01402
P00072	..301	00703
P00102	..302	00712
P00121	..303	00730
P00134	..304	00743
P00150	..305	00754
P00207	..611	01140
P00220	..646	01206
P00263	..661	01227
P00266	..671	01250
P00311	..686	01277
P00013	..99	00450
P00551	..200001	00546
P00610	..200002	00605
C23420	HCCHANGE	

01075

01120

00615



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C02020	WPPS	00771	00772	01257	01257	01260	01353	01353	01364	01365
C00000	OLDSUM	01420								
P01415	P00000.0U									
C00017	PLANTAPE									
C00002	POSTDATA									
X00002	ORODICT.	00000	00404							
X00021	UN-SINGL.	01412								
C00000	RANGE									
C00620	RANGENEC									
C01060	RANGENEF									
C00002	RATIO									
X00907	WDAPRAY	01107								
C05740	REFTIME									
C01200	KEL									
X00012	HEW.	01040								
C04610	SAL									
P00404	SETFILE	00404								
X00006	SETREAD	01024	01047							
X00005	SETWRITE	01011								
X00020	SLI.	00401	01077							
V20017	SLO.	00524	01122							
C00240	SPEED									
X00015	STM.	00444	00520	00701	00710	00726	00741	00754	01116	01204 01246 01275
C00014	STHKFIL	01341	01357	01400						
C00001	SUNNEW									
X00011	TER-TAPE	01324	01335							
C00000	TGTFILE									
X00001	THEND.	00451	00464	00527	00527	00560	00617	00704	00722	00735 00750 00757
C00001	TINFILE	01102	01125	01152	01211	01232	01253	01302	01344	01407
C00010	TEMPALOC									
C00005	IMPOST									
C00004	IMPTAR									
P00673	TS00002.	00537								
P00774	TS00003.	00766								
P01372	TS00007.	01351								
X00013	TSM.	00455	01073							
C00000	TWORD									
P01422	UP00000.	00437	00536	00672	00764	01053	01062	01143	01150	01215 01306 01350
C13560	VALUENEW	01371	01416	01423	01424	01425	01427	01427		
C00000	WINFILE									
C02640	WLAT									
C03150	WLONG									
X00010	WWORD	01171	01264	01320						
P00441	WS00001.	00443								
P00540	WS00002.	00674	00674							
F00771	WS00003.	00773								
P01054	WS00004.	01063								
P01144	WS00005.	01151								
P01216	WS00006.	01307								
P01352	WS00007.	01373	01373							
C05430	YIELD									
00453	SYMBOLS									



```

SURROUTINE IGTPREP
CSUBR IGTPREP 1JUN71 *****
C TARGET PREPARATION PHASE OF PREALLOCATION *****
C CALCULATES DISTCD(ICORR) AND ATTRCD(ICORR) FOR ICORR=1, NCOHR AND *****
C DISTOG AND DISTOF *****
CUSE MASTER 1JUN71 *****
COMMON/MASTER/INDATE,INDENTNO,ISIDE,NRTPT,NCORR,NOPEN,NRECOVER *****
1,NREF,NRNDRY,NNEG,NTYPE,NGROUP,NTOTBASE,NPAYLOAD,NASMTYPE,NHMDTYPE *****
2,TANKBAS,NCOMPLEX,NCLASS,NALERT,NTGTS,NCORTYPE,NCNTRY *****
EQUIVALENCE (NGROUP, NG1), (NALERT, NOTHER) *****
CEND MASTER *****
CUSE TAPES 1JUN71 *****
COMMON/FILES/ TGTFIL(2),BASFILE(2),MSLTIME(2), *****
1 ALOCAR(2),TMPALOC(2),ALOCGRP(2),STRKFL(2), *****
2 EVENTAPE,PLANTAPE *****
C TYPE INTEGER TGTFIL, BASFILE, MSLTIME, ALOCAR, *****
1 TMPALOC, ALOCGRP, STRKFL, EVENTAPE, PLANTAPE *****
C COMMON/NOWFILE/ WINFILE, TINFILE, POSTDATA, FIAFILE, TMPTAR *****
1 , TMPOST *****
C TYPE INTEGER WINFILE, TINFILE, POSTDATA, FIAFILE, TMPTAR, TMPOST *****
CEND TAPES *****
CUSE OPENREF 1JUN71 *****
COMMON/OPENREF/DPLINK(50),DPLAT(50),DPLONG(50),RFLAT(20), *****
*RELONG(20),MOPEN,MREF *****
C TYPE INTEGER DPLINK *****
CEND OPENREF *****
CUSE CORRCHAR 1JUN71 *****
COMMON /CORRCHAR/ PCLAT(30), PCLONG(30), PCZONE(30), ZPLAT(30), *****
1 ZPLONG(30), ENLAT(30), ENLONG(30), CRLENGTH(30), KORSTYLE(30), *****
2 ATTRCORR(30), ATTRSUPF(30), MILOATTR(30), DEFRANGE(30), *****
3 NPROCDEF(30), DEFOIST(30,3), ATTRPRE(30,3), NDATA, LMAX *****
C TYPE INTEGER PCZONE *****
CUSE TYPE REAL KORSTYLE *****
DIMENSION DISTBC(30),PRATTR(30,3),DISTDEF(30,3) *****
EQUIVALENCE (DEFOIST,DISTDEF), (PRATTR,ATTRPRE) *****
EQUIVALENCE (CRLENGTH, DISTBC) *****
CEND CORRCHAR *****
CUSE ITP 1JUN71 *****
COMMON/ITP/ITP *****
CEND ITP *****
CUSE ITPRINT 1JUN71 *****
COMMON/ITPRINT/ITPRINT(10) *****
CEND ITPRINT *****
CUSE MYIDENT 1JUN71 *****
COMMON/MYIDENT/MYIDENT *****
CEND MYIDENT *****
CUSE PREALOC 1JUN71 *****
COMMON/PREALOC/PCLINK(30),RPLINK(200),RPLAT(200),RPLONG(200), *****
*ATTRLEG(200),DISTEF(50),DISTEG(50),RECLINK(200),RECLAT(200), *****
*RECLONG(200),IRECPCTY(200),INDREC(200),IBEGIN(30),PCTYPE(30) *****

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*ATTRBC(30)
TYPE INTEGER PCLINK,RPLINK,RECLINK,PCTYPE
PREALOC .....
DIMENSION DISTCD(30),ATTRCD(30)
IMPSTOR 1JUN71 .....
COMMON/IMPSTOR/BLOCK(1600)
C
DIMENSION NLOCK(1600)
EQUIVALENCE(BLOCK,NLOCK)
C
COMMON /SIZES/ MDATMUL, MDATCX, MSPERMT, MTELMCH, LINSTOR,
1   LNC1, LNC2
C
IMPSTOR .....
PRINTCTRL 1JUN71 .....
COMMON/PRINTCTRL/PRINTSW(7),ISTRT(3),ILST(3),INWDS(3),IPRNTNO,NTG5,
1   MPRQ, MSET(7)
PRINTCTRL .....
DUMCCORR 1JUN71 .....
COMMON /DUMCCORR/ NDUMCCORR
NDUMCCORR = NUMBER OF DUMMY CORRIDORS WITH NO ASSOCIATED GEOGRAPHY
DUMCCORR .....
1DUMCCORR 1JUN71 .....
C+
COMMON/1DUMCCORR/ INPUT(10), NVARS, NAMES(40), INVALU(2,40),
1   INDEX1(40), INDEX2(40), INDEX3(40), MORE
C
COMMON/ MACHINE/ IREAD, IWRIT, ICOMM, IPUNCH
C
DATA(IREAD = 60), (IWRIT = 61), (ICOMM = 44), (IPUNCH = 65)
COMMON/DEFAULT/ MYNAME(20), MYFORM(20), MYTYPE(20), MYVAL(20),
1   FVAL(20), NOEFLT
C
EQUIVALENCE (MYVAL, FVAL)
C
1DUMCCORR .....
OPTION 1JUN71 .....
COMMON/OPTION/ ICHANGE, IFIXTGT, RATIO, INOVAL(2), INOMIN(2),
1   INOMAX(2), NDESREQ, NFIXREQ
C
OPTION .....
CHANGES 1JUN71 .....
COMMON/ CHANGES/ ICLASWAN(2000), ITYPEWAN(2000), IDENTWAN(2000),
1   VALUENEW(2000), IFOUND(2000), MCHANGE, MFLAREQ
C
DIMENSION INFIX(10000)
EQUIVALENCE(INFIX, ICLASWAN)
C
COMMON/ SUMS/ OLDSUM, SUMNEW, NAMCLAS(20), FRCLAS(20)
CHANGES .....
MYLABEL 1JUN71 .....
COMMON /MYLABEL/ MYFORMT, MYSECR, MYLNGTH, MYCOMM(5)
C

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3000

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CEND MYLABEL ***** 20000
CUSE BRKPNT 1JUN71 ***** 21000
C ***** 1000
COMMON/BRKPNT/ INDRG(250), TYPENAME(250),
1 CUMNO(15), BTYPES(15), INDCLAS(15), MTARTYPE, MTARCLS 2000
***** 3000
C ***** 4000
CEND BRKPNT ***** 21000
CUSE CTRYCO 1JUN71 ***** 22000
C ***** 1000
COMMON /CTRYCO/ CTRYCO(150), MCNTRY 2000
C DATA (MCNTRY = 150) 3000
C ***** 4000
C ***** 5000
CEND CTRYCO ***** 22000
EQUIVALENCE(NTOS,NTIMES) 23000
IUNITN = XBSF(TINFILE) 24000
MYIDENT = TMTINFILE 25000
ITP = TINFILE & CALL SETREAD 26000
READ TINFILE 27000
ITAPECK=7MTINFILE 28000
ITP = TINFILE & CALL RDARRAY(NLJCK,5) 29000
NTS=NLOCK(5) 30000
NTGTS=NLOCK(5) 31000
IF(NLOCK(1).EQ.ITAPECK)90,91 32000
91 WRITE(UNIT, 92) NLOCK(1), ITAPECK 33000
WRITE(COMM, 92) NLOCK(1), ITAPECK 34000
92 FORMAT(/* ERROR IN TARGET INPUT FILE **AB,2X,AB) 35000
STOP 36000
90 CONTINUE 37000
DO 93 I = 1, LNG2 38000
93 NLOCK(I) = -0 39000
IF(ICHANGE + IFIXGT) 95, 94, 95 40000
NO SCRATCH FILE REQUIRED 41000
94 IOUTF = TGFILE(1) 42000
MYLENGTH = LNG2 + NTS 43000
TGFILE(2) = MYLENGTH 44000
MYIDENT = 8MTGFILE 45000
GO TO 98 46000
95 IF(ICHANGE) 96, 97, 96 47000
96 ITP = TPOST 48000
MYIDENT = THSCRATCH 49000
CALL SETWRITE 50000
97 IOUTF = TPTAR 51000
MYIDENT = THSCRATCH 52000
98 ITP = IOUTF 53000
CALL SETWRITE 54000
MYIDENT = 8HSCRATCH 55000
ITP = POSTDATA 56000
CALL SETREAD 57000
CLEAR VALUE CHANGE ARRAYS 58000
OLDSUM = 0.0 59000
SUMNEW = 0.0 60000
NTIMES = MTANCLS 61000
DO 99 I = 1, NTIMES 62000
NAMCLAS(I) = #NOT USE# 63000
FRCLAS(I) = 0.0 64000

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```

99 CONTINUE
NCNTRY = 0
DO 300 NTIMES=1,NTS
  IF(IPRINTSV(6).EQ.0)451,450
450 IF(NTIMES.GE.ISTRT(2).AND.NTIMES.LE.ILAST(2))452,453
452 ITPRINT(IUNTRN) = INWDS(2)
  GO TO 451
453 ITPRINT(IUNTRN) = 0
451 CONTINUE
  ITP = ITPFILE % CALL ROADWAY(PLUCK,LNG)
  C PUSH DOWN WORDS IN BLOCK
  DO 40 I=1,11
    N = 31-(I-1)
    R0 BLOCK(N)=BLOCK(N-2)
    DO 41 I=1,3
      N = 19-(I-1)
      R1 BLOCK(N)=BLOCK(N-1)
    C INSERT ARRAYS V0,EVAL
    BLOCK(15) = BLOCK(15)+BLOCK(11)
    BLOCK(16) = BLOCK(11)+BLOCK(15)
    BLOCK(20) = 1-BLOCK(19)-BLOCK(18)
  C FILL WORDS TGLAT,TGLONG
  TGLAT = BLOCK(8)
  TGLONG = BLOCK(9)
  C FIND INDYEN FOR WHICH THE QUANTITY 2*DISTOF(INDYEN)+DISTNG(INDYEN)
  C
  IS A MINIMUM
  X2=TGLAT
  Y2=TGLONG
  YF=PLAT(1)
  YF=PLONG(1)
  R0I2=2*DISTOF(X2,Y2,XF,YF)+DISTEF(1)+DISTEG(1)
  INDIC=1
  DO 45 IOPEN=2,IOPEN
    XF=PLAT(IOPEN)
    YF=PLONG(IOPEN)
    T0I2=2*DISTOF(X2,Y2,XF,YF)+DISTEF(IOPEN)+DISTEG(IOPEN)
    KIND=IOPEN
    IF (R0I2.LT.T0I2) 45,44
  44 R0I2=T0I2
  INDIC=KIND
45 CONTINUE
  DISTOF=(R0I2-DISTEF(INDIC)+DISTEF(INDIC))/2
  DISTOF=DISTOF+DISTEG(INDIC)-DISTEF(INDIC)
  INDYEN=INDIC
  C PUT INDYEN, DISTOF, AND DISTNG IN BLOCK
  BLOCK(32) = INDYEN
  BLOCK(33) = DISTOF
  BLOCK(34) = DISTNG
  DO 50 ICORR = 1, NCONR
  C CALCULATE DISTCD AND ATTCH
  IF (ICORR - NCONR) 52, 52, 54
  52 DISTCD(ICORR) = ATTACH(ICORR) = 0.0
  GO TO 54
  54 JRTPT = PCLINK(ICORR)
  XI=PLAT(JRTPT)
  YI=PLONG(JRTPT)

```

65000  
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119000  
120000

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```

DISTCO(ICORR)=DISTF(X1,Y1,X2,Y2)
ATTRCD(ICORR)=DISTCO(ICORR)*.5*(ATTRCDM(ICORR)+ATTRSUPF(ICORR))
C PUT DISTCO AND ATTRCD IN #LOCK
56 INDEX1 = ICORR+34
   INDEX2 = ICORR+64
   BLOCK(INDEX1)=DISTCO(ICORR)
   BLOCK(INDEX2)=ATTRCD(ICORR)
50 CONTINUE
   CALL MAKECHG
   IPRNTNO=5
   CALL PRINTDAT
   IC = NLOCK(25)
   FRCLAS(1) = FRCLAS(1C) * (NLOCK(11) * BLOCK(7))
C WRITE #LOCK ON TGTape
   NLOCK(1NG2) = 0
   ITP = IOUTF
   CALL WHARRAY(HLOCK, LNG2)
C CHECK FOR NEW COUNTRY CODE
   I = ITRC(NLOCK(5), CTRYCD, NENTRY)
   IF(I) 210, 210, 300
210 IF(NENTRY - NENTRY) 230, 220, 220
220 WRITE(IWRIT, 221) NENTRY
221 FORMAT('MORE THAN *.13* COUNTRY LOCATION CODES. SOME WILL BE
      IGNORED')
   GO TO 300
230 NENTRY = NENTRY + 1
   CTRYCD(NENTRY) = BLOCK(5)
C END DO LOOP OVER TARGETS
300 CONTINUE
C
   ITP = IOUTF
   CALL TERTAPE
   ITP = TINFIL
   CALL TERTAPE
   FINISH TGTFILE IF NECESSARY
   CALL CHKCHG
   CALL HASWRIT
   IF(I) 400, 410, 400
400 CALL FINWEAP
   GO TO 500
410 IF(ICCHANGE) 420, 500, 420
420 CALL NORMALZ
500 WRITE(IWRIT, 501) NTS
501 FORMAT('10X,15* TARGETS PROCESSED'//* ICLASS CLASS NAME
      FRACTION OF TOTAL*/24X*VALUE IN CLASS*)
   DO 510 I = 1, NTARCLS
   FRCLAS(I) = FRCLAS(I) / SUMNEW
   WRITE(IWRIT, 502) I, NAMCLAS(I), FRCLAS(I)
502 FORMAT(3X,12.6X,AR,FX,F7.4)
510 CONTINUE
   RETURN
   END

```

## INENT TGTPREP

PROGRAM LENGTH  
ENTRY POINTS  
BLOCK NAMES

MASTER	01014
FILES	00174
NOFILE	00027
OPENREF	00020
CORRCHAR	00006
ITP	00300
IFTPHAT	01132
MYIDNT	00001
PREALOC	00012
INPSTOR	00001
SIZES	03744
PRNTCTHL	03100
DUNCORR	00007
IODUMMY	00032
MACHINE	00001
DEFAULT	00374
OPTION	00004
CHANGES	00121
SUNS	00013
MYLABEL	23422
BKRPNT	00052
CTRYCD	00010
	01043
	00227

## EXTERNAL SYMBOLS

THEND.  
ORUSTOPS  
ORJOICT.  
SETHEAD  
WDAHRRAY  
SETWRITE  
DISTF  
MAKECHG  
PRINTDAT  
WRAHRRAY  
ITILE  
TER-TAPE  
CHKCHG  
BASWRIT  
FIXWEAP  
NORMALZ  
STM.  
QNSINGL.

## 5.415 TGIPREP

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C00012 ALOCPP									
C00004 ALOCTAN									
C03706 ATWRC									
P00041 ATTCCO	00540	00560	00574						
C00416 ATTCCRP	00555	00555							
C01166 ATTLEF									
C00776 ATTPRE									
C00454 ATWSUPF									
C00002 RASFILE									
X00016 RASRIT	00675								
P00750 HEGIN.	00751	00412	00412	00413	00424	00425	00427	00427	00430
C00000 HLOCK	00402	00431	00432	00433	00434	00435	00435	00437	00437
	00522	00524	00524	00571	00571	00575	00514	00514	00522
	00555	00655							00626
C01003 RTYPES									
X00015 CMKCMG	00673								
P00747 CAVRTT.	00237	00250		00252	00447	00734	00736	00737	
P00762 COUNT.	00265	00344		00345	00462	00463	00531		
P00077 CRFMT.	00255	00652	00721	00742					
C00322 CRLENRTH									
C00000 CTAYCO	00631	00657	00657						
C00764 CUMNO									
C00644 DEFUJST									
C00550 DEFVANGE									
P00001 DICT.	00174	00210	00216	00232	00241	00245	00254	00314	00332
	00401	00450	00471	00452	00502	00406	00525	00444	00666
	00472	00674	00676	00702	00707	00713	00720	00731	
C00322 DISTHC	00540	00555	00557	00570					
C00644 DISTDEF									
P00763 DISTDF	00514	00521							
P00764 DISTDG	00514	00523							
C01476 DISTEF	00453	00454	00474	00475	00512	00515			
C01560 DISTEG	00454	00475	00511	00512	00514	00515			
X00007 DISTF	00447	00470	00551						
C00062 DPLAT	00443	00443	00464						
C00000 DPLINK									
C00144 DPLONG	00445	00445	00466	00466					
P00752 ENDING.	00177	00257	00745	00750	00751				
C00226 ENTLAT									
C00264 ENTLONG									
C00016 EVENTAPE									
P00000 EXIT.	00753								
C00003 FIXFILE									
X00017 FIXDEAP	00701								
P00077 FORMAT.	00203								
C00026 FRCLAS	00350								
C00074 FVAL									
P00242 GG00000.	00230								
P03255 GG00001.	00243								
P00652 GG00002.	00642								
P00721 GG00003.	00711								
P00742 GG00004.	00727								

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CODE	DESCRIPTION	00261	00264	00341	00344	00404	00405	00414	00415	00417	00426	00633
C00512	H1LOATTR											
P00765	I	00722	00723	00733	00742							
C03612	IREGIN											
P00766	IC	00610	00612									
C00000	ICHANGE	00271	00271	00305	00305	00704	00704					
C00000	ICLASWAN											
C00002	ICUMM	C00002	00242	00242								
P00767	ICORP	C0526	00531	00533	00561	00564	00600					
C00001	IDENTAN											
C00760	IDENT-AN											
P00770	IDPEN	00457	00463	00477	00507							
P00364	IF00001	00362										
C00001	IFIXTGT	00272	00477	00477								
C17500	IFOUNO											
C00000	IFPRAT	00371	00371	00374	00375							
C00000	INDATE											
C00012	ILST	00365										
C00000	INDHFG											
C01022	INDCLAS											
C00203	INDEX1	00562	00563	00566								
C00253	INDEX2	00565	00565	00572	00572							
C00323	INDEX3											
P00771	INDIC	00456	00505	00511	00517							
C00007	INDMAX											
C00005	INDMIN											
C00302	INDREC											
C00003	INDREL											
P00772	INDYPEN	00517										
C00000	INFIX	00177										
P00750	INITIAL											
C00000	INPUT											
C00063	INVALU	00367	00367	00321	00622	00663						
C00015	INWTS	00275	00314									
P00773	IOUFE	00603	00604									
C00020	IPANTNO	00354	00354									
C00000	IPRNTSW	C00003										
C00003	IPUNCH	00677										
C00000	IPRAC											
C02772	IPRCDCTV											
C00002	ISIDE	00362										
C00607	ISTAT	00212										
P00774	ITAPECK	00627										
X00013	ITL	00205										
C00000	ITP	00377										
C03720	TYPE-AN											
P00775	UNFIN	00202	00370	00374	00341	00641	00710	00710	00725	00726		
C00001	141T	C00001	00227	00227	00341	00641	00710	00710	00725	00726		
P00776	210	00634	00634									
P00777	220	00640										
P00778	230	00640										
P00779	300	00634										
P00780	300	00634										
P00781	300	00634										



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P01704	.410	00700			
P01706	.420	00705			
P01503	.44	00501	00501		
P01361	.450	00357			
P01506	.45	00502			
P01376	.451	00360	00372		
P01367	.452	00365			
P01373	.453	00353	00366		
P01577	.50	00703	00705		
P01710	.500	00535			
P01742	.510	00536			
P01537	.52	00534			
P01542	.54	00541			
P01561	.54				
P01411	.55				
P01423	.51				
P01260	.50	00224			
P01227	.51	00224			
P01266	.53	00272			
P01274	.54	00273	00273		
P01305	.55	00304			
P01307	.56	00304			
P01315	.57	00304			
P01321	.58				
P01351	.59				
P01755	.FAKASEH.	00407	00420	00421	
P01077	.100000	00404			
P01100	.100001	00203			
P01114	.100002	00211			
P01115	.100003	00302			
P01114	.100004	00311			
P01117	.100005	00317			
P01120	.100006	00325			
P01121	.100007	00344			
P01137	.100008	00345			
P01164	.100009	00372			
P01101	.100010	00373			
P01101	.100011	00373			
P01754	.ASTIFF.	00240	00574	00575	
P01774	.JRTST	00579			
P01777	.KIN	00582			
C01360	.KIN-STYLE	00504			
C01004	.LITON				
C01131	.LITON				
C01005	.LITON				
C01004	.LITON				
C01010	.LITON				
C01020	.LITON				
C01026	.LITON				
C01001	.LITON				
C01004	.LITON				
C01024	.LITON				
C01021	.LITON				
C01022	.LITON				



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C00017	WMDTYPE	00333	00334						
C00000	WLDLUM	00333	00334						
C00000	PCLAT	00542	00542						
C00000	PCLINK								
C00034	PCLONG								
C03650	PCTYPE								
C00074	PCZONE								
C00017	PLANTAPE	00327	00327						
C00002	POSTDATA								
C00776	PRATTN	00605							
X00011	PRINTDAT	00175							
X00003	QROUIC	00000							
X00002	QROSTOPS	00256							
X00022	QNSINGL	00746							
X00002	RATIO								
X00005	RAHAY	00215	00400						
P01002	RUIST	00455	00500	00504	00510				
C02152	RECLAT								
C01642	RECLINK								
C02462	RECLONG								
C00226	RPLAT								
C00252	RFLONG								
C00346	RPLAT	00544	00545						
C00036	RPLINK								
C00656	RPLONG	00546	00547						
X00004	SETPEAD	00207	00231						
X00006	SETWRITE	00313	00323						
X00021	STW	00231	00244	00643	00712	00730			
C00014	STKFFIL								
C00001	SUMNEW	00335	00725						
P01003	THIST	00476	00500	00503					
X00014	TFMTAPE	00665	00671						
C00000	TGFILE	00274	00274	00301	00301				
P01004	TGLAT	00436	00441						
P01005	TGLONG	00440	00442						
P00174	TGTREFP	00174							
X00001	THEMO	00240	00253	00650	00717	00740			
C00001	TINFILE	00200	00200	00204	00205	00212			
C00010	TMPALOC								
C00005	TMPOST	00307	00307						
C00004	TMPTAP	00315	00315						
P00271	TS00001	00263							
P00352	TS00002	00343							
P00661	TS00003	00355							
P00510	TS00006	00461							
P00601	TS00007	00530							
P00743	TS00010	00722							
C00372	TYPENAME								
C13560	VALUENEW								
C00000	WINFILE								
X00012	WRAHAY	00624							
P00266	WS00001	00470							
P00346	WS00002	00351							
P00356	WS00003	00662	00662						

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P00405	*S000004.	00414	
P00417	*S000005.	00424	
P00444	*S000006.	00507	
P00533	*S000007.	00600	
P00723	*S00010.	00744	
P01004	X1	00544	00744
P01007	X2	00451	00472 00554
P01010	XF	00444	00465 00473
P01011	Y1	00550	
P01012	Y2	00442	00472 00554
P01013	YF	00444	00467 00473
C00132	ZPLAT		
C00170	ZPLONG		
	00427 SYF HOLS		

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```

SUBROUTINE VALUMON
  CSUBR VALUMON 1JUN71 *****
  C THIS ROUTINE READS THE CHANGE REQUEST CARDS
  C FOR CHANGES TO TARGET VALUE, MINIKILL, OR MAXKILL.
  C
  CUSE CHANGES 1JUN71 *****
  C COMMON/ CHANGES/ ICLASWAN(2000), ITYPEWAN(2000), IDENTWAN(2000),
  C   1 VALUENEW(2000), IFOUND(2000), MCHANGE, MFIXREQ
  C
  C DIMENSION INFIX(10000)
  C EQUIVALENCE(INFIX, ICLASWAN)
  C
  C COMMON/ SUMS/ OLDSUM, SUMNEW, NAMCLAS(20), FNCLAS(20)
  CEND CHANGES *****
  C
  CUSE IODUMMY 1JUN71 *****
  C COMMON/ IODUMMY/ INPUT(10), NVARS, NAMES(40), INVALU(2,40),
  C   1 INDEX1(40), INDEX2(40), INDEX3(40), MORE
  C
  C COMMON/ MACHINE/ IREAD, IWRITE, ICUMW, IPUNCH
  C
  C DATA(IREAD = 40), (IWRITE = 61), (ICUMW = 44), (IPUNCH = 45)
  C
  C COMMON/DEFAULT/ MYNAME(20), MYFORM(20), MYTYPE(20), MYVAL(20),
  C   ; FVAL(20), NOEFLY
  C
  C EQUIVALENCE (MYVAL, FVAL)
  C
  CEND IODUMMY *****
  C
  CUSE OPTION 1JUN71 *****
  C COMMON/OPTION/ ICHANGE, IFIXTGT, KATIO, INDVAL(2), INDMIN(2),
  C   1 INDMAX(2), NDCSRFO, MFIXREQ
  C
  CEND OPTION *****
  C
  C DIMENSION ITEMP(2)
  C
  C IAM = 7*VALUMON
  C IMOD = 4*H VALUE
  C IOPT = 1
  C ISTART = XMAXOF(INDMAX(2), INDMIN(2)) + 1
  C INDVAL(1) = ILOW = ISTART
  C GO TO 100
  C
  C ENTRY MINMOD
  C
  C IAM = 4*MINMOD
  C IMOD = 7*MINIKILL
  C IOPT = 2
  C ISTART = XMAXOF(INDVAL(2), INDMAX(2)) + 1
  C INDMIN(1) = ILOW = ISTART
  C GO TO 100

```

```

C      ENTQ MAXMOD
C      IAN = MAXMOD
C      INOD = 7H-MAXKILL
C      IOPT = 3
C      ISTART = KMAXOF(INVAL(2), INCHIN(2)) + 1
C      INUMAX(1) = INOW = ISTART
C
C      100 ICHANGE = 1
C      WRITE(IUNIT, 101) INOW, IAN, INOD
C      101 FORMAT(10XEN INUT CHAGE REQUESTS FOR *A7.* MODIFICATION. (SU
C      INOUTIN *A7.1-1) // 3(2X*CHLARGE(2X), 6X, 3HNEW, / * CLASS
C      TYPE IDENTIFIER *A4)
C      READ NEXT CARD
C
C      200 IF (INOW.GT. MCHANGE) GO TO 250
C      IF (INOD.EQ. 201) ICLASMAN(INOW), ITEMPMAN(INOW), ITEMP,
C      1 VALUEW(INOW)
C      201 FORMAT(4X, 2X, AB, 2X, AB, 2X, AB, 2X, F10.0)
C      WRITE(IUNIT, 202) ICLASMAN(INOW), ITEMPMAN(INOW),
C      1 ITEMP, VALUEW(INOW)
C      202 FORMAT(1X, 4X, 2X, AB, 2X, AB, 2X, AB, 2X, F10.4)
C      IF (ICLASMAN(INOW) - 6HEXCHANG) 210, 300, 210
C      CHANGE REQUEST
C      210 ISTORE = NUGET(ITEMP, 10)
C      IF (ISTORE) 220, 220, 230
C      DESIG IDENTIFIER
C      220 IDENTMAN(INO*) = ITEMP(1)
C      GO TO 240
C      INDEX NUMBER IDENTIFIER
C      230 IDENTMAN(INO*) = ISTORE
C      FACURENT INDEX
C      240 IFOUND(INOW) = 0
C      CHECK FOR DATA VALIDITY
C      IF ( ICLASMAN(INOW) .EQ. MH
C      1 .AND.
C      2 ITEMP(1) .EQ. RH
C      3 ITEMP(2) .EQ. PH
C      4 NO REQUEST
C      400 WRITE(IUNIT, 401)
C      401 FORMAT(//10X, 15(14H)* PREVIOUS CHANGE REQUEST INVALID. REQUEST
C      116*40.0)
C      GO TO 200
C      CHECK DATA
C      410 IF (VALUEW(INOW)) 420, 440, 440
C      420 NEGATIVE VALUE
C      420 VALUEW(INOW) = 0.0
C      430 WRITE(IUNIT, 431) INOW, VALUEW(INOW)
C      431 FORMAT(//10X, 15(14H)* PREVIOUS CHANGE REQUEST OUT OF RANGE. NE
C      1 *A7.* IS NO. *AF10.4)
C      GO TO 440
C      440 IF (IOPT - 1) * (VALUEW(INOW) - 1.0) 460, 460, 450
C      VALUE GREATER THAN 1.0 FOR WINKILL OR MAXKILL
C      450 VALUEW(INOW) = 1.0
C      GO TO 430
C      460 CONTINUE

```

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```

      INQ = INQ + 1
      GO TO 200
      TOO MANY REQUESTS
      C 250 WRITE(UNIT, 251) MCNAGE
      251 FORMAT(//10X, I5,1H*) *OMP THAN *.15* CHANGE REQUEST. REMAINDER
      10F REQUESTS (OUMHED)
      260 READ(OF40, 261) (TEMP
      261 FORMAT(A8,A2)
      IF (TEMP(1) - REFNOCHANG) 266, 300, 260
      C 300 ISTORE = INQ - ISTART
      INQ = INQ - 1
      WRITE (UNIT, 301) ISTORE, INQ, ISTART, INQ
      301 FORMAT(// * A TOTAL OF *.14,1X,A7* CHANGE REQUESTS WERE PROCESSED
      1.0/25X, THE REQUESTS ARE STORED IN LOCATIONS *.14* THROUGH *.14)
      GO TO (310, 320, 330), IUP
      VALUE
      C 310 INQVAL(2) = INQ
      RETURN
      C 320 INQMIN(2) = INQ
      RETURN
      C 330 INQMAX(2) = INQ
      RETURN
      END

```

85000  
 86000  
 87000  
 88000  
 89000  
 90000  
 91000  
 92000  
 93000  
 94000  
 95000  
 96000  
 97000  
 98000  
 99000  
 100000  
 101000  
 102000  
 103000  
 104000  
 105000  
 106000  
 107000  
 108000  
 109000  
 110000

5.4TS VALUMOD

PROGRAM LENGTH  
ENTRY POINTS

BLOCK NAMES

MAXMOD  
MINMOD  
VALUMOD

CHANGES  
SUMS  
IDUUMY  
MACHINE  
DEFAULT  
OPTION

EXTERNAL SYMBOLS

THEM.  
QMGRCT.  
NUMGET  
XMAXOF  
TSH.  
STH.  
SLO.  
SLI.  
QNSINGL.

IDENT

00603  
00273  
00254  
00235  
23422  
00052  
00374  
00004  
00121  
00013

VALUMOD

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## 5-ATS VALUATION

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P00564 REGIM.	00564	00321	00322	00336	00341	00347	00361	00362	00367	00452	00454
P00563 CAVATTI.	00563	00537	00540	00541	00542						
P00005 CEFK.	00325	00353	00372	00434	00457	00510	00523	00545			
P00001 NICT.	00237	00246	00256	00265	00275	00304	00315	00324	00334	00345	00352
	00356	00365	00371	00374	00430	00433	00447	00456	00502	00507	00513
	00517	00522	00534	00544							
P00565 ENDING.	00240	00257	00274	00553	00556	00561					
P00000 EXIT.	00565										
P00005 FORMAT.	00241	00243	00260	00262	00277	00301	00372	00414	00523		
C00026 FRCLAS											
C00074 FVAL											
P00325 GG00000.	00313										
P00353 GG00001.	00332										
P00372 GG00002.	00354										
P00434 GG00003.	00426										
P00457 GG00004.	00445										
P00510 GG00005.	00500										
P00523 GG00006.	00511										
P00545 GG00007.	00532										
P00574 IAM	00242										
C00000 ICHANGE	00311										
C00000 ICLASMAN	00340										
C00002 ICOMM	00002										
C07640 IDENTMAN	00404										
P00416 IF00001.											
P00421 IF00002.											
P00423 IF00003.											
C00001 IFIXTGT											
C17500 IFQUED	00412										
P00575 IGOTO.	00544										
P00576 IPON	00262										
C00203 INDEX1											
C00253 INDEX2											
C00323 INDEX3											
C00007 INPMAN	00247										
C00005 INPMIN.	00247										
C00003 INPMAL	00252										
C00000 INPFX											
P00564 INITIAL.	00240										
P00577 INOW	00251										
	00464										
C00000 INPIT											
C00063 INVALU											
P00600 INPT	00244										
C00003 INPUNCH	00003										
C00000 IPEAN	00005										
P00601 ISTART	00251										
P00602 ISTORE	00400										
P00003 ITEMPE	00346										
C03720 IYPEMAN	00462										
C00001 IUPIT	00312										
	00531										
P00311 .100	00253										
	00272										

P00330	..100001				
P00331	..100002	00327	00327		
P00325	..200	00434	00476		
P00375	..210	00374			
P00403	..220	00401			
P00404	..230	00402			
P00411	..240	00405			
P00477	..250	00330			
P00510	..260	00525			
P00526	..300	00374	00524		
P00551	..310	00547			
P00554	..320	00547			
P00557	..330	00550			
P00425	..400				
P00435	..410	00415	00420	00422	00424
P00441	..420	00437			
P00444	..430	00473			
P00460	..440	00437	00440		
P00471	..450				
P00474	..460	00457	00467	00470	
P00566	..FRASER.	00250	00267	00306	00464
P00005	..100000	00241			00467
P00004	..100001	00243			
P00007	..100002	00260			
P00010	..100003	00262			
P00011	..100004	00277			
P00012	..100005	00301			
P00102	..100006	00373			
P00103	..100007	00415			
P00104	..100008	00417			
P00105	..100009	00422			
P00106	..100010	00424			
P00201	..100011	00524			
P00013	..101	00316			
P00055	..201	00335			
P00066	..202	00357			
P00152	..251	00503			
P00175	..261	00514			
P00202	..301	00535			
P00107	..401	00431			
P00127	..431	00450			
P00273	..MAX00	00273			
C23420	..CHANGE	00324			
C23421	..FIX00	00324	00324	00504	00504
P00254	..WIN00				
C00373	..W00	00254			
C00024	..WFO0				
C00000	..WYNAME				
C00050	..WYTYPE				
C00074	..WYVAL				
C00002	..WYCLAS				
C00013	..WYNAME				
C00120	..WYREFL				
C00011	..WYSEFO				

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C00012 NFIXRFQ  
 X00003 NUNGET  
 C00012 NVARS  
 C00000 QLNDA  
 X00002 QUNICT  
 X00011 QUNINGL  
 C00002 PAYIO  
 X00010 SLI  
 X00007 SLO  
 X00006 STM  
 C00001 SUMNEW  
 X00001 TMEAN  
 X00005 TSH  
 C13560 VALUENEW  
 P00235 VALUON  
 X00004 XMAXOF  
 00167 SYMOLS

00375

00000

00562

00344

00304

00314

00323

00333

00350

00473

00235

00245

00236

00255

00274

00514

00354

00351

00352

00367

00264

00501

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00455

00432

00443

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00521

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00472

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00465

00472

```

SUBROUTINE WEAPPREP
  CSUBR WEAPPREP 1JUN71 *****
  C WEAPON PREPARATION PHASE OF PREALLOCATION *****
  C CALCULATES DISTAC(IGROUP,ICORP) AND ATTAC(IGROUP,ICORP) FOR *****
  C IGROUP=1,NGROUP AND ICOMPR=1,NCORP *****
  CUSE *****
  MASTER 1JUN71 *****
  COMMON/MASTER/IMDATE,INFNTNO,ISTDE,ARTPI,NCORP,NDPEN,NHFCOVER *****
  1 LINKF,NRNDY,NMGE,NTYPE,NGROUP,NTOTRASE,NPAYLUD,NASHTYPE,NMMDTYPE *****
  2 INTANKAS,NCOMPLEX,MCLASS,NALERT,NTGTS,NCORTYPE,ANCHTRY *****
  EQUIVALENCE (NGROUP,NGI); (NALERT,MOTHER) *****
  CEND *****
  CUSE *****
  MASTER 1JUN71 *****
  TAPFS *****
  C *****
  COMMON/FILES/ TGTFILE(2),NASFILE(2),MSLTIME(2), *****
  1 ALOCTAR(2),TMPALOC(2),ALOCGRP(2),SIRKFL(2), *****
  2 EVENTAPE,PLAN:APE *****
  C *****
  TYPE INTEGER TGTFILE, NASFILE, MSLTIME, ALOCTAR, *****
  1 TMPALOC, ALOCGRP, SIRKFL, EVENTAPE, PLAN:APE *****
  C *****
  COMMON/NOFILE/ WINFILE, TINFILE, POSTDATA, FIXFILE, TMPTAR *****
  1 , TMPOST *****
  C *****
  TYPE INTEGER WINFILE, TINFILE, POSTDATA, FIXFILE, TMPTAR, TMPOST *****
  C *****
  TYPES *****
  TARMO 1JUN71 *****
  COMMON /TARMO/ ITWORD *****
  EQUIVALENCE (TWORD, ITWORD) *****
  CEND *****
  TARMO *****
  OPENREF 1JUN71 *****
  COMMON/OPENREF/OPENREF *****
  *RFLONG(20),MOPEN,MREF *****
  TYPE INTEGER OPENREF *****
  CEND *****
  OPENREF *****
  WPNREC 1JUN71 *****
  COMMON/WPNREG/CCREL(20),WREG *****
  CUSE *****
  WPNREG *****
  WPNDATA 1JUN71 *****
  COMMON/WPNDATA/RANGE(R0),CEP(R0),SPEED(R0),ALERTOLY(R0), *****
  1 NALRTOLY(M0), RANGEVEC(R0), ICLASS(R0), RANGEREFF(R0), *****
  2 REL(R0),IPECHORE(R0),IPECHORE(90),ISIMTYPE(R0), *****
  3 FUNCTION(R0),NWPNS(2*0),NVEHGRP(200),WLAT(200), *****
  4 *LONG(200),IHEG(200),ITYPE(200),IALERT(200),SBL(200), *****
  5 IREFUEL(200),YIELD(200),REFTIME(200),OISTAC(200,30), *****
  6 MTYPE,MGROUP,MUESREQ *****
  C *****
  DIMENSION IPAY(200),MYFIXD(5000),MYDEXST(5000),OUMAR(10000) *****
  C *****
  TYPE REAL NALRTOLY *****
  TYPE INTEGER FUNCTION *****
  C *****
  EQUIVALENCE (IPAY,IREFUEL),(MG,MGROUP) *****
  C *****
  EQUIVALENCE (MYFIXD,RANGE,OUMAR), (MYDEXST,OUMAR(5001)) *****
  C *****

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CEND      *MNDATA .....
CUSE      PLANTYPE 1JUN71 .....
COMMON/PLANTYPE/ INITSTRK,CORNSL,CORNAME .....
CEND      PLANTYPE .....
CUSE      PAYLOAD 1JUN71 .....
COMMON/PAYLOAD/NOROMB1(40),IMH01(40),NOBOMB2(40),IMH02(40)
1,NASM(40),IASM(40),NCM(40),NDECOYS(40),MADECOYS(40),IMINV(40)
2 *PAYLOAD .....
EQUIVALENCE (MP, MPAYLOAD) .....
CEND      PAYLOAD .....
CUSE      ASHTARLE 1JUN71 .....
COMMON/ASHTARLE/IMHDSM(20),RANGEAS*(20),RELAS*(20)
1,CEPAS*(20),SPEEDASM(20),MASMTYPE .....
EQUIVALENCE (MASM, MASMTYPE) .....
CEND      ASHTARLE .....
CUSE      *MNHED 1JUN71 .....
COMMON/*MNHED/VLD(50),POUD(50),FFRAC(50),*MMDTYPE .....
CEND      *MNHED .....
CUSE      CORRCHAR 1JUN71 .....
COMMON /CORRCHAR/ PCLAT(30), PCLONG(30), PCZONE(30), ZPLAT(30),
1 ZPLONG(30), ENLAT(30), ENLONG(30), CRLENGTH(30), KORSTYLE(30),
2 ATTHCORR(30), ATTSUPP(30), HILOATP(30), DEFRANGE(30),
3 *MPCRDEF(30), DEFDIST(30,3), ATTHEME(30,3), MDATA, LMAX .....
C
TYPE INTEGER PCZONE
TYPE REAL KORSTYLE
DIMENSION DISTHC(30),PRATTH(30,3),DISTDEF(30,3)
EQUIVALENCE (DEFDIST,DISTDEF),(PRATTH,ATTPRE)
EQUIVALENCE (CHLENGTH, DISTHC)
CEND      CORRCHAR .....
CUSE      HAPPEN 1JUN71 .....
COMMON/HAPPEN/JAPTYPE(250),MAPLAT(250),MAPLONG(250)
1,MAPDIST(250),MRTP .....
EQUIVALENCE (L*MAPMAX, MR1DT) .....
CEND      HAPPEN .....
CUSE      CHAPTER 1JUN71 .....
COMMON/CHAPTER/KOUNT(30),IMAP(30),MOUNT(50),JMAP(50),M CORR .....
CEND      CHAPTER .....
CUSE      BOUNDARY 1JUN71 .....
COMMON /BOUNDARY/ BPLINK(200), BPLAT(200), BPLONG(200),
1 BPZONE(200), *NEXTZONE(200), *MBOUND .....
TYPE INTEGER BPLINK,BPZONE
CEND      BOUNDARY .....
CUSE      ITP 1JUN71 .....
COMMON/ITP/ITP .....
CEND      ITP .....
CUSE      IFTPRNT 1JUN71 .....
COMMON/IFTPRNT/IFTPRNT(10) .....
CEND      IFTPRNT .....
CUSE      MYIDENT 1JUN71 .....
COMMON/MYIDENT/MYIDENT .....
CEND      MYIDENT .....
CUSE      TEMPO 1JUN71 .....
COMMON/TEMPO/LT(50),LT(50),JT(50),DT(50)
TYPE REAL LT, LN .....
CEND      TEMPO .....

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CUSE      PHEALOC 1JUN71 *****
COMMON/PHEALOC/PLINK(30),RPLINK(200),RPLAT(200),RPLONG(200),
*ATTLEG(200),DISTFF(50),DISTEG(50),RECLINK(200),RECLAT(200),
*RECLONG(200),IRECPCTY(200),INDREC(200),IREGIN(30),PCTYPE(30),
*ATTRECI(30)
TYPE INTEGER PCLINK,RPLINK,RECLINK,PCTYPE
PHEALOC *****
IMPSTOR 1JUN71 *****
COMMON/IMPSTOR/BLOCK(1600)

C      OTENSION NLOCK(1600)
EQUIVALENCE(BLOCK,NLOCK)

C      COMMON /SIZES/ M0ATHUL, M0ATCK, M5PERMT, MTELMCH, LINSTOR,
1      LMG1, LMG2

C      IMPSTOR *****
PRINTCTL 1JUN71 *****
COMMON/PRINTCTL/PRINTSW(7),ISTRT(3),ELST(3),INOS(3),IPRATNO,NTGS,
MPPG, MSET(7)

C      PRINTCTL *****
RECOVR 1JUN71 *****
COMMON/RECOVR/RCLAT(50,4),RCLON(50,4),INORAS(50,4),INDCAP(50,4),
*DISTR(50,4),MCLATX(50),MCLAX(50)

C      RECOVR *****
EXCESS 1JUN71 *****
COMMON /EXCESS/ MEXCESS, PERORMB, EXNRORR, PEXMTRV, EXMTRV,
1      PERMISS, EAMTSS, SHLREAL(200)

C      EXCESS *****
NAVAL 1JUN71 *****
COMMON/NAVAL/NAVAL, IDRL(200), PKNVAV(200)

C      NAVAL *****
DUMCORR 1JUN71 *****
COMMON /DUMCORR/ NDUICORR
NDUICORR = NUMBER OF DUMMY CORRIDORS WITH NO ASSOCIATED GEOGRAPHY
DUMCORR *****
DIMENSION NOPERSON(80),NMPSITE(50),IREP(80), SPQHI(80),
1      SPQLO(80), SPDASH(80), INWTYPE(80)
DATA (MTOTBASE = 150)
DIMENSION EXPASH(200)
DATA (IPOWER=2)
TUNWIN = XARSF(INFILE)
MYIDENT = THSCHATCH
ITP=POSTDATA SCALL SETWRITE
698 ITP = WINFILE
CALL M0ARRAY(NLOCK,1)
ITP =POSTDATA
CALL M0ARRAY(NLOCK,1)
IF(NLOCK.EQ.8H7ZZZZZZZ1699,698
699 CONTINUE
IF(IPRINTSW(4).EQ.0)697,696
696 IF(IPRINTIUNWIN) = 10

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697 CONTINUE
ITP = WINFILE
NWDS = NMOTYPE*3 $ J = 1
CALL ROARRAY(NLOCK,NWDS)
DO 700 K = 1, NWDS*3
  YLOC(J) = RLOCK(K)
  PLOC(J) = RLOCK(K+1)
  FFLOC(J) = RLOCK(K+2)
700 J=J+1
  NWDS = NASMTYPE*5 $ J=1
  CALL ROARRAY(NLOCK, NWDS)
  DO 701 K=1, NWDS*5
    IMDASM(J) = NLOCK(K)
    RANGEAS(J) = RLOCK(K+1)
    RELASM(J) = RLOCK(K+2)
    CEPASM(J) = RLOCK(K+3)
    SPEEDASM(J) = RLOCK(K+4)
701 J=J+1
  NWDS = PAYLOAD*10 $ J=1
  CALL ROARRAY(NLOCK, NWDS)
  DO 702 K=1, NWDS*10
    NOSOMB1(J) = NLOCK(K)
    IMHOM2(J) = NLOCK(K+1)
    IMHOM2(J) = NLOCK(K+2)
    IMHOM2(J) = NLOCK(K+3)
    NASM(J) = NLOCK(K+4)
    IASW(J) = NLOCK(K+5)
    NCM(J) = NLOCK(K+6)
    NOECOYS(J) = NLOCK(K+7)
    NADECOYS(J) = NLOCK(K+8)
    IMTRV(J) = NLOCK(K+9)
702 J=J+1
  NWDS = REF
  CALL ROARRAY(COCEL,NWDS)
  LNG3 = 20 * NTYPE
  DO 710 K = 1, LNG3*20
    CALL ROARRAY(RLOCK(K), 20)
710 CONTINUE
C FILL COMMON WPNTYPE AND OTHER WEAPON TYPE ARRAYS
DO 704 K=1, NTYPE
  JJ = 20*(K-1)
  IMWTYPE(K) = NLOCK(JJ+1)
  RANGE(K) = RLOCK(JJ+2)
  CEP(K) = RLOCK(JJ+3)
  SPEED(K) = RLOCK(JJ+4)
  ALERTOLY(K) = RLOCK(JJ+5)
  NALRTOLY(K) = RLOCK(JJ+6)
  IF (INTSTAK*0.1) *15 *16
  NALRTOLY(K) = NALRTOLY(K) - ALERTOLY(K)
  ALERTOLY(K) = 0.
  IF (NALRTOLY(K).LT.0) *17 *16
  NALRTOLY(K) = 0
  *17 NALRTOLY(K) = 0
  *16 CONTINUE
  RANGEDEC(K) = RLOCK(JJ+7)
  ICLASS(K) = NLOCK(JJ+8)
  NOPEPSON(K) = NLOCK(JJ+9)

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SPDW(K)=NLOCK(JJ+10)
SPUL(K)=NLOCK(JJ+11)
SPUASH(K)=NLOCK(JJ+12)
RANGREF(K)=NLOCK(JJ+13)
HEL(K)=NLOCK(JJ+14)
NMPSTE(K)=NLOCK(JJ+15)
IREP(K)=NLOCK(JJ+16)
IRECMODE(K)=NLOCK(JJ+17)
IPENMODE(K)=NLOCK(JJ+18)
ISMTYPE(K)=NLOCK(JJ+19)
FUNCTION(K)=NLOCK(JJ+20)
704 CONTINUE
DO 703 K=1,NGRUP
  ITP = 'INFIL'
  CALL QDARRAY(NLOCK, 14)
  NVEHGRP(K)=NLOCK(2)
  WLAT(K)=NLOCK(3)
  WLONG(K)=NLOCK(4)
  IREG(K)=NLOCK(5)
  ITYPE(K)=NLOCK(6)
  SALREAL(K) = (1. - NLOCK(4))
  ID-L(K) = NLOCK(13)
  PKNAV(K) = NLOCK(14)
  ADD FAT FOR ALLOCATOR
  KK=ITYPE(K)
  IF(IICLASS(K).EQ.FROMREP)11,410
410 IP = NLOCK(9)
  IF (IPV(IP)) 413, 414
C
C
C
  NOV = MIV MISSILE
C
C
C
413 NMPNS(K) = NLOCK(1) * (1.0 + PEXMISS * (EXNMIS / NLOCK(2)))
  GO TO 412
C
C
C
414 NMPNS(K) = NLOCK(1) * (1.0 + PEXMIV * (EXNMIV / NLOCK(2)))
  GO TO 412
C
C
C
  HMMREH
C
C
C
411 NMPNS(K) = NLOCK(1) * (1.0 + PEXRUM * (EXNRUM / NLOCK(2)))
412 PFLFACT = (NMPNS(K) + 1.0) / NLOCK(1)
  FWP = NLOCK(1)
  IALFT(K)=NLOCK(7)
  SLIKI = (1.-NLOCK(8))/PFLFACT
  IREFUEL(K)=NLOCK(9)
  IF (IREFUEL(K).EQ.-3)500,501
500 IREFUEL(K)=0
501 CONTINUE
  YIELD(K)=NLOCK(10)
  ITP=NSTOATA $CALL WRADWAY(K,1)
  NLOCK(2)=NVEHGRP(K)
  NLOCK(3)=IREG(K)
  NLOCK(4)=ITYPE(K)
  NLOCK(5)=TALEPT(K)

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NLOCK(4)=IRFFUEL(K)
NLOCK(7)=YIELD(K)
NLOCK(8)=NLOCK(11)
NLOCK(9)=NLOCK(12)
ITP=POSTDATA 5 CALL WARRAY(NLOCK,9)
NBASE=NLOCK(12)
DO 705 M = 1, LNG2
705 DISTAC(M) = 0
60 NWDS=NBASE*5
ITP = WINFILE
CALL WARRAY(NLOCK,NWDS)
FASM = 0.
DO 62 M=1,NBASE
  JJ=5*(M-1)
  DISTAC(M)=NLOCK(JJ+1)
  DISTAC(M + MTOTBASE) = NLOCK(JJ+2)
  DISTAC(M + 2*MTOTBASE) = NLOCK(JJ+3)
  DISTAC(M + 3*MTOTBASE) = NLOCK(JJ+4)
  IPAYT = NLOCK(JJ+4)
  DISTAC(M + 4*MTOTBASE) = NLOCK(JJ+5)
  INCREMENT NUMBER OF ASMS
  NV = NLOCK(JJ+5) *AND. 77774
  FASM = FASM + NV * NASH(IPAYT)
62 CONTINUE
EXPASH(K) = FASM / FWP
ITP=POSTDATA
NWDS = 5*MTOTBASE
CALL WARRAY(DISTAC,NWDS)
63 CONTINUE
KK=ITYPE(K)
NLOCK(1)=ISIMTYPE(KK)
NLOCK(2)=RANGE(KK)
NLOCK(3)=CEP(KK)
NLOCK(4)=SPEED(KK)
NLOCK(5)=ALEWTULY(KK)
NLOCK(6)=NALRTDLY(KK)
NLOCK(7)=RANGDEC(KK)
NLOCK(8)=ICLASS(KK)
NLOCK(9)=NOPERSON(KK)
NLOCK(10)=SPDHI(KK)
NLOCK(11)=SPULJ(KK)
NLOCK(12)=SPDASH(KK)
NLOCK(13)=RANGREF(KK)
NLOCK(14)=NMPSTE(KK)
NLOCK(15)=IREP(KK)
NLOCK(16)=IRECHODE(KK)
NLOCK(17)=IPENMODE(KK)
NLOCK(18) = FUNCTION (KK)
ITP = POSTDATA 5 CALL WARRAY(NLOCK,18)
703 CONTINUE
DO 50 IGROUP=1,NGROUP
C CALCULATE ATTRAC AND DISTAC
INDEX=ITYPE(IGROUP)
REFTIME(IGROUP)=0.
IF(ICLASS(INDEX).EQ.IRONMBER)10,50
10 JRT=IRFUEL(IGROUP)

```

```

C DOES WEAPON GROUP HAVE A REFUELING POINT
  IF (JPT.GT.0) 25,20
C NO, CALCULATE DISTANCES FROM WEAPON GROUP ORIGIN TO BEGINNING OF EACH
C   PENETRATION CORRIDOR
  20 X1=WLAT(IGROUP)
     Y1=MLONG(IGROUP)
     GO TO 30
C YES, CALCULATE DISTANCES FROM REFUELING POINT TO BEGINNING OF EACH
C   PENETRATION CORRIDOR
  25 X1=RELAT(JPT)
     Y1=RPLONG(JPT)
     X2 = WLAT(IGROUP)
     Y2 = MLONG(IGROUP)
     REFTIME(IGROUP)=(DISTF(X2,Y2,X1,Y1))/SPEED(INDEX)
  30 CONTINUE
  DO 35 ICORR = 1, NDUMCORR
  35 DISTAC(IGROUP,ICORR) = 0.0
     ISTARTC = NDUMCORR + 1
  DO 40 ICORR = ISTARTC, NCORR
     KPT=IBEGIN(ICORR)
     X2=RPLAT(KPT)
     Y2=RPLONG(KPT)
     DISTAB=DISTF(X1,Y1,X2,Y2)
     DISTAC(IGROUP,ICORR)=DISTAB+DISTBC(ICORR)
  40 CONTINUE
  50 CONTINUE
  DO 421 M=1,NGROUP
  421 DISTAC(M,1) = EXPASM(M)
     IPHYTNO= 3
     CALL PRINTDAT
     ITP=POSTDATA
     ITWORD = RHYYYYYYYY
     CALL WRWORD
     NWDS = MNORDY * 5
     CALL WHARRAY(MPLINK,NWDS)
     NWDS = 2*NCORR + 2*MDPEN
     CALL WHARRAY(KOUNT, NWDS)
     NWDS = 4 * MTPT
     CALL WHARRAY(JAPTYPE, NWDS)
     NWDS = 2 * MDPEN
     CALL WHARRAY(HCBLTX(1), NWDS)
     NWDS = 5 * 4 * MDPEN
     CALL WHARRAY(HCBLAT(1,1), NWDS)
     NWDS = NTANKRAS * 12
     ITP = WINFILE
     CALL WHARRAY(NLOCK, NWDS)
     ITP=POSTDATA
     CALL WHARRAY(NLOC,NWDS)
     ITP = WINFILE 5 CALL TERMTAPE
     ITP = POSTDATA
     ITWORD = RHXXXXXXX
     CALL WRWORD
     CALL TERMTAPE
     DO 420 M = 1, NTYPE
  420 ISINTYPE(M)=INTYPE(M)
     RETURN

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FTNS.5

END

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1403

## IDENT WEAPPREP

PROGRAM LENGTH ENTRY POINTS BLOCK NAMES	WEAPPREP	
	02661	
	01401	
MASTER	00027	
FILES	00020	
NOFILE	00006	
TRON	00001	
OPENREF	00300	
WPNREG	00025	
WPNDATA	23420	
PLANTYPE	00003	
PAYLOAD	00621	
ASMTABLE	00145	
WARHEAD	00227	
CORRCHAR	01132	
HAPPEN	01751	
CHARTER	00241	
BOUNDARY	01751	
ITP	00001	
IFTPHNT	00012	
MYIDENT	00001	
TEMPO	00310	
PREALOC	03744	
INFSTOR	03100	
SIZES	00007	
PRINTCTL	00032	
RECOVR	02114	
EXCESS	00317	
NAVAL	00621	
DUMCORR	00001	

## EXTERNAL SYMBOLS

01005100  
 01004100  
 01010100  
 0000100  
 SETWITE  
 ROADRAY  
 WRARAY  
 DIST  
 PRICIDAT  
 WARMOD  
 TENDTAPF

5.ATS WEAPPREP

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01636

C00360 ALPHATOLV  
C00012 ALOCARP  
C00006 ALOCAR  
C03706 ATTAC  
C00416 ATTACORH  
C01166 ATTALFG  
C00776 ATTAPRE  
C00454 ATTASUPF  
C00002 BASFILE  
P02576 BEGIN.  
C00000 WLOCK

01636 01636 01644 01645 02233 02234

02600  
01460  
01514  
01635  
01664  
01741  
02144  
02232  
02251

01460 01463 01463 01465 01465 01465  
01520 01520 01520 01527 01527 01527  
01635 01637 01637 01654 01654 01654  
01670 01670 01670 01672 01672 01672  
01741 01741 01741 02037 02037 02037  
02151 02152 02152 02157 02157 02157  
02233 02233 02233 02235 02235 02235  
02252 02252 02252 02254 02254 02254

01512 01512 01512 01514 01514 01514  
01631 01631 01631 01633 01633 01633  
01662 01662 01662 01664 01664 01664  
01726 01726 01726 01726 01726 01726  
02074 02074 02074 02074 02074 02074  
02226 02226 02226 02227 02227 02227  
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C00013	NG			02414	02421	01507	01507	01533	01542	01542	01542
C00013	NGROUP			02414	02421	01507	01507	01533	01542	01542	01542
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C00000	NNOHOMPL	01544	01544	02414	02421	01507	01507	01533	01542	01542	01542
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C00007	NREF			02414	02421	01507	01507	01533	01542	01542	01542
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X00004	Q1000100	01774	02001	02014						
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C00024	RANGEASW	01513	01430	02225	02226					
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C00050	REFLAT	01515	01515							
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C00252	REFLAT	02333	02333							
C00346	REFLAT	02374	02377							
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C00654	REFLAT	02400	02401							
C00410	REFLAT	02040	02041							
C00007	REFLAT	01734	01736							
X00005	SET-ATTE	01414								
P00623	SPOASH	01667	02252							
P00363	SPOUT	01663	02246							
P00503	SPOUT	01664	02250							
C00240	SPEF	01634	01634							
C00120	SPEF	01521	01521							
C00014	STRAFIL	02523	02523							
X00013	TFR-TAPE									
C00007	TGFILE									
C00001	TINFILE									
C00010	TMPALOC									
C00005	TMPST									
C00004	TMPST									
P01472	TSP00001	01454	01454							
P01525	TSP00002	01503	01503							
P01572	TSP00003	01534	01534							
P01612	TSP00004	01602	01602							
P01712	TSP00005	01614	01614							

